DOCTOR OF CLINICAL PSYCHOLOGY (DCLINPSY)

Doctorate in Clinical Psychology: Main Research Portfolio

1) How do Solution-Focused Systemic Therapists Gather Evidence? An Evaluative Review of Research Methodologies used in Solution-Focused forms of Social Constructionist Systemic Therapy ; 2) : Integrating Formulation into Assessment in a Community Mental Health Recovery Team to Improve Recommendations for Patient Care; 3) Does Paediatric Maladaptive Perfectionism Mediate the Association between Parenting Factors and Paediatric Anxiety in Adolescents?.

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Abstracts

Main Research Project Abstract

Objective: To assess if adolescent perfectionism mediates the association between negative parental factors (anxiety, maladaptive perfectionism, critical and authoritarian parenting) and paediatric anxiety. Method: A cross sectional questionnaire design was used. Sixty-six 12-17-year-old adolescents and their primary caregiver were recruited from a local community school and child and adolescent mental health services. Self- and parent-report questionnaires measured anxiety, perfectionism and parenting style. Results: There was a significant association between adolescent perfectionism and anxiety and between parental perfectionism and anxiety. However, there was no evidence that parental perfectionism was associated with child perfectionism or anxiety. Conclusions: The fact that parental factors were not associated with adolescent maladaptive perfectionism implies that the processes associated with the development of maladaptive perfectionism and anxiety in childhood may be different in adolescents. Implications for treatment and future research are discussed.

Service Improvement Project Abstract

Background: The 5Ps model is a formulation tool which includes the mental health problem as well as predisposing, precipitating, perpetuating and protective factors. The 5Ps model was integrated into the assessment service in the community mental health recovery team by the first author (trainee clinical psychologist) with support from the service manager and clinical psychologist. Objectives: This research aimed to measure whether assessment staff in the community mental health recovery team were using the 5Ps model in assessment meetings and assessment letters to formulate service user's mental health problems. This research also aimed to assess whether recommendations for mental health care addressed the 5Ps factors which were noted in the assessment letter and assessment meeting notes. Finally, the research aimed to recommend strategies to improve the use of the 5Ps model by assessment staff. Design: Assessment staff (n=6) were interviewed using semi-structured interviews. Assessment letters and meeting notes (n=36) were analysed using case note analysis. Methods: Percentage use of 5Ps in assessment letters and meeting notes and percentage of recommendations linked to 5Ps in assessment letters were calculated. The amount of 5Ps training staff received was also compared to staff members'

use of the 5Ps in assessment letters. Thematic analysis of staff questionnaire data was completed. Results: Assessment staff are using the 5Ps in their assessment work and some recommendations were linked to the 5Ps stated in assessment letters. Recommendations to improve the use of the 5Ps by assessment staff were based on staff feedback and case note analysis and included; updating the letter and assessment formats/processes to ensure that all of the 5Ps are linked to the mental health problem and recommendations made for treatment, completing the formulation section on the electronic notes system and further training for assessment staff in how to identify the 5Ps/how recommendations can address the 5Ps. Conclusion: Results suggest that the 5Ps formulation was operational to assessment staff as it was utilised to formulate service users mental health problem at assessment. However, results suggest that the recommendations need to be implemented to improve assessment staff's acceptability and use of the 5Ps. The service agreed to adhere to the recommendations suggested to improve the use of the 5Ps and agreed that if recommendations are adhered to these results support the plan to integrate the 5Ps into other adult mental health teams across Bristol.

Literature Review Abstract

Objective: All studies of solution-focused therapy which included adults with a mental health problem are reviewed and research methodologies are summarised and rated according to the quality of the research methodology used. Method: Sixteen studies were found and data extracted on setting, mental health problem, modality, target and duration of intervention, research methodology, measures, sample size, method of analysis, comparison treatment and quality score. Results: 14 studies utilised quantitative research methodologies. Eight of the studies used a quasi-experimental design including control groups (n=6) and random assignment (n=3). One study used a post-intervention questionnaire follow-up design and one study calculated recovery rates. One study calculated whether or not the patient presented with self-harm within 1 year post intervention and pre-post intervention change on a solution-focused measure. Two studies were randomised controlled trials and another two studies were single case experimental designs. Two studies utilised qualitative research methodologies including transcribing a therapy session/post-intervention interview. Quantitative outcomes were measured using multiple questionnaire measures and multiple analysis methods. Conversation analysis and thematic analysis were used for qualitative studies. The quality scores of the studies varied from 4 (single case experimental design) to 14 (randomised controlled trial) and 15

(controlled quasi-experimental). Conclusion: This review shows that solution-focused therapy is being evaluated using many valid and reliable research methodologies and questionnaires. It is hoped that solution-focused therapists and researchers can use this review to complete and publish further research which measures the effectiveness of solution-focused therapy using research methodologies which produce valid and reliable results.

Literature Review

Title: How do Solution-Focused Systemic Therapists Gather Evidence? An Evaluative Review of Research Methodologies used in Solution-Focused forms of Social Constructionist Systemic Therapy

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Literature Review

It has been argued by some researchers that social constructionist systemic therapies are not suited to evaluative research (Dallos & Draper, 2010). Indeed Carr (2000) hypothesises that social constructionist systemic therapist's don't engage in research due to beliefs that 'diagnostic criteria, scores on assessment instruments, statistical formulae and rules concerning statistical and clinical significance of results' (Carr, 2000 pg 289) are not in line with the theory of social constructionism. However Carr (2000) argues that these research related words 'are all social constructions (which have) evolved through communities of scientists and clinicians in conversation (and have) been found to be useful, (which is) the hallmark of valid social construction' (Carr, 2000 pg 289). He argues that social constructionist systemic therapists should therefore be committed to evaluating the work that they do in order to maintain evidence-based practice. One reason for social constructionist systemic therapists not engaging in research may be because the outcomes being measured differ depending on the systemic problem which is being treated. For example, difficulties in communication may only be measured if it is assessed to be part of the systemic problem which maintains the difficulties. Because of this variance in systemic problems it is also hard to objectively measure and compare outcomes between systems (Stratton, 2010). This has resulted in inappropriate measures being used in systemic research and 'a lack of generally agreed methods for measuring family interactional patterns' (Cottrell & Boston, 2002 pg 577; Pinsof & Wynne, 1995), resulting in clinicians not completing research at all.

Solution-focused therapy draws on social constructionist theory (Dallos & Draper, 2010) as it acknowledges that language is a social construction and that people's social systems may be preventing them from finding solutions to their problems. Solution-focused therapy has been used with adults with a mental health problem for the last 20-30 years (Deshazer et al., 1986) and has a growing evidence base. As solution-focused therapy draws on social constructionist theory it is aligned with measuring language and social interaction outcomes. This can be measured using a qualitative research methodology (e.g. thematic analysis of a therapeutic session) as well as a quantitative methodologies (e.g. pre post intervention change on a Likert scale). The rationale and function of qualitative measurement is to explore data (e.g. a transcript of a solution-focused therapy session or of an interview asking a client their opinion of solution focused therapy) to gain further

understanding and insight, leading to further hypotheses (e.g. how clients perceived the process of change or themes suggesting how the language used in session enabled new constructions of reality/solutions to be found).

Solution-focused therapy uses a present and future oriented approach which is goal-directed and implemented collaboratively using constructed questions (Deshazer et al., 1986). Problem-free talk as well as miracle, exception, coping and scaling questions are used to support clients to repeat their past successful choices and behaviour's and therefore facilitate the client to move towards their goals. According to the solution focused model (Deshazer et al., 1986) the mechanism of change is a questioning style focused on finding solutions to problems as this enables the client to problem solve and make positive changes (Deshazer et al., 1986). Therefore the outcomes of solution-focused therapy are whether or not the problem was solved/a solution was found. This can be measured using systematic quantitative or qualitative methodologies, but it has been suggested that solution-focused therapists are not always systematically measuring outcomes (Carr, 2009; Carr, 2009; Carr, 2014; Dallos & Draper, 2010). It is also suggested that the research methodologies used by solution-focused therapists/researchers are not always effective at producing valid and reliable outcome data (Stratton, 2010).

The research base for solution-focused therapy in adults with mental health problems needs to grow exponentially to establish its effectiveness and consequent commissioning in the British National Health Service (NHS), which is a government commissioned service that is free to all (Carr, 2009; von Sydow et al., 2010). Therefore, valid and reliable research methodologies need to be used by solution-focused systemic clinicians to evaluate the work that they do and to establish solution-focused therapy as a reliable and valid intervention in adults with mental health problems. Quantitative and qualitative research are currently used in evaluating solution-focused therapy, with qualitative research being believed to be the most popular amongst professionals due to its emphasis on subjective experience rather than objective measurement (Dallos & Draper, 2010). Evaluation (comparison/cost effectiveness), process (active ingredients) and family theory (dynamics/communication) types of research can be used to evaluate the effectiveness of solution-focused therapy in adults with a mental health problem (Dallos & Draper, 2010). The different methodologies used to evaluate therapy in adult mental health include; case studies, interviews, questionnaire/survey, experimental/comparative studies (Leff et al.,

2000; von Sydow, Beher, Schweitzer, & Retzlaff, 2010) and reviews/meta-analyses (Carr, 2009, 2014; Stratton, 2010). The validity and reliability of the results found by these evaluative research methodologies varies depending on the amount of bias which may have affected the results. Bias can occur due to problems with design, sampling, randomisation, assessment, a lack of manual, analysis, types of control group and the measures used in the research (Elliott, Fischer, & Rennie, 1999; Tarrier & Wykes, 2004). The most valid and reliable evaluative research methodologies would seek to reduce bias in all of these areas and the amount of bias can be objectively measured (CASP, 2014; Tarrier & Wykes, 2004). The research methodologies available to evaluate solution-focused systemic interventions are being underutilised and have not been evaluated (Carr, 2009, 2014). A previous review on solution-focused therapy in adults with mental health problems has considered the research methodologies which have been used (Gingerich & Peterson, 2013). However the review only included quantitative controlled research studies and did not evaluate the quality of the research methodologies or list research methodologies/analyses and measures used.

This review aims to dispel the myth that evaluative research methodologies do not fit social constructionist therapies and will focus on showing solution-focused therapists/researchers that evaluative research can be conducted for solution-focused forms of therapy. This review aims to answer the research question; how do solution-focused therapists/researchers conduct research to measure the effectiveness of their intervention when one adult member of the system has a mental health concern? To do this the review will identify, evaluate and summarise the research methodologies which are currently being used to evaluate the effects of solution-focused therapies in adults with a mental health problem. It is hoped that the publication of this review will enable solution-focused clinicians and researchers to access an evaluation and summary of the research methodologies that have been used when evaluating the effects of solution-focused systemic therapies in adults with a mental health problem. Hopefully this will result in an increase in valid and reliable evaluative research by solution focused therapists, which will enable NHS commissioners to make reliable decisions regarding the effectiveness of solution-focused therapies in improving adult mental health.

Method

A qualitative evaluative review methodology was used, which included pre-determined selection criteria and a search strategy (as detailed below). Data was extracted using a data extraction table in excel and the quality of the research methodologies found was assessed and scored using a combination of research quality criteria (CASP, 2014; Elliott et al., 1999; Tarrier & Wykes, 2004) (see tables 2, 3 and 4). The data extracted and the quality scores of the research methodologies used were also summarised in tables.

Selection Criteria

Studies which evaluated solution-focused therapy using quantitative and qualitative methods were included. Only peer reviewed or published/available on the internet doctoral dissertations were included (Barroso & Powell-Cope, 2000). Studies including adults aged 18 or over were included. For the purposes of this review we chose just to focus on research which included an adult with a mental health problem. This was to try to ensure that the studies included had a similar focus (i.e. mental health, as opposed to more general concerns like communication problems or sexual difficulties). However, as systemic ways of working are often non-diagnostic driven (as they address relational difficulties) the problem addressed in therapy did not have to be the mental health problem (i.e. it may have targeted marital conflict). Therapies that drew on solution-focused theory were included and this was operationalised using previous definitions in the literature (Deshazer et al., 1986; Gingerich & Peterson, 2013). Studies which mixed the solution-focused intervention with an intervention which was not based on solution-focused theory (e.g. psychoeducation/parent training) were excluded. Studies which were not published in the English language were also excluded. No restrictions were imposed on session number or length.

Search Strategy

Two electronic databases were searched; PsychINFO and Web of Science. The search terms used included (solution focused therap*) OR (solution*) OR (solution-focused) OR (brief solution focused) AND (evidence OR research OR stud* OR Qualitative) AND (mental health) AND (adult) AND (peer-reviewed journal) for the period between 1984 to April 2015. 1984 was included as a start date due to the implementation of research into solution-focused therapy with adults with mental health problems at this time (Deshazer et al., 1986). The reference lists of the papers included, relevant reviews and the brief solution-focused website were also checked. This resulted in a total of 552 initial studies

(see figure 1). After excluding duplicates, the titles and abstracts of 331 articles were reviewed and 211 were excluded based on not meeting selection criteria. The full-texts of 42 studies were reviewed by both the researcher and research supervisor (2nd author) who had experience in solution-focused therapy; 26 studies were excluded based on not meeting selection criteria and disagreements were discussed and decided according to selection criteria (reasons shown in figure 1). A final sixteen studies were included for data abstraction and analysis.

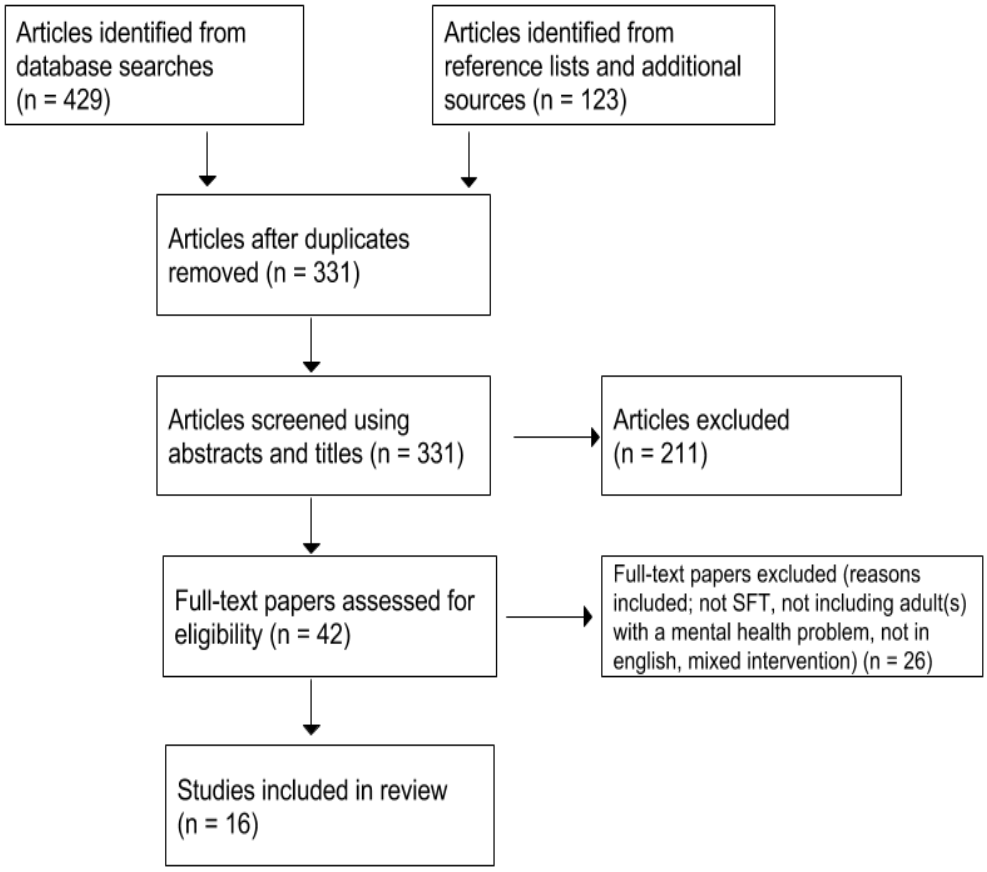

Figure 1. Flow diagram showing study selection process.

Data Abstraction and Analysis

Data was abstracted from each study using a data extraction table. The abstracted information is presented in summary table 1. The features of the study design which were

needed to assess the quality of the research methodology used in each of the studies were also extracted and are presented in tables 2, 3 (quantitative) and 4 (qualitative).

Results

Studies Identified

Table 1. Studies Included

Author(s)	Setting/ Location	MH Problem	Modality of Intervention	Target of Intervention	Duration of Intervention	Research Methodology	Measures Used	Sample Size	Method of Analysis	Comparison Treatment	Quality Score (0-20)
Gail, Jerry & Newfield (1992)	U.S.	Depression	Solution-Focused Marital Therapy	Marital relationship improvement	1 1-hr	Transcribed audio-tape of therapy session	Transcription of 45 minute videotape of single session	2	Conversation Analysis - how language is used to elicit new constructions of reality using nine descriptive categories of the linguistic strategies used.	N/A	9
Metcalf and Thomas (1994)	Brief Family Therapy Center (milwaukee, wisonsin)	Depression (2 of the 6 participants) panic (1 of the 6 participants)	Solution-Focused Brief Therapy	How respondents perceived therapy and the process of change	Unclear	Interviews with couples and their therapists transcribed (separate)	Qualitative interview	6	Qualitative analysis using Taylor and Bodgan, 1984 method)	N/A	8

Knekt et al (2011)	Helsinki Out-patient psychiatric services	Anxiety and Depression	Solution-Focused Brief Therapy	Change by constructing solutions	7.5 months (mean)	Quasi-experimental	BDI, Hamilton Depression and Anxiety Rating Scales, SCL-90-A, Work Ability Index, the Work-subscale of the Social Adjustment Scale and the Perceived Psychological Functioning Scale.	506	Continuous response variables: linear mixed models (Verbeke & Molenberghs, 1997) Binary responses: logistic regression models and generalized estimating equations estimation were used (Liang & Zeger, 1986).	Long-term psychodynamic psychotherapy, short-term psychodynamic psychotherapy, psychoanalysis	15
Eakes et al, (1997)	Outpatient services at a community mental health centre	Schizophrenia	Brief Solution-Focused Therapy	Presumes family competency, orients the family towards a future when they will manage the	5 1-hr	Pre-test post-test quasi experimental design	Family Environment Scale (moos and moos, 1994)	10	ANOVA and t-test analyses	Traditional aftercare services - 20 minute	5

				problem, and builds on family strengths by highlighting previous successes in coping with and managing presenting difficulties.						medical checks every other week	
Lambert et al (1998)	27 consecutive private patients, UK	Dysthymia, anxiety disorders, adjustment disorders, major depression, and substance abuse.	Solution-Focused Brief Group Therapy	Identification of a problem and finding a solution to the problem	2-7 1-hr	Quasi-experimental dose-response curves and calculating recovery rates based on a cut off on the measure they used	Outcome Questionnaire (Lambert, Hansen, et al., 1996) which measured three areas of patient functioning: symptomatic distress, interpersonal problems, and social	27	Dose-response curves and calculating and comparing recovery rates based on a cut off on the measure they used	Not made clear, but active psychological intervention	7

							role adjustment. Also QOL.				

Wise man (2003)	James Cook University Hospital (A&E) in Middlesbrough, UK	Self-harm	Single Session Solution-Focused Brief Therapy (given during standard psychosocial assessment for SH)	Full psychosocial assessment including the use of a 'miracle question', 10-point progress scale, focus on strengths and solutions.	1 90-min	Whether the patient presented with self-harm within 1 year post intervention and pre-post session change on SFBT measure	Rating scales inherent in the SFBT approach	40	Analysis of post-session change on SFBT scale not stated. Total of repeat presentation's at A&E calculated and compared between groups who had/had not received SFBT	Repetition rate in the study group was compared with the total repetition rate at 1 year for all people who presented with self-harm	7

Macdonald (1994)	Referred to MDT providing brief therapy in adult psychiatry	Anxiety, depression, eating/weight concerns, alcohol addiction	Brief Solution-Focused Therapy using a one-way screen and team	The team highlights the attenders' existing skills and recommends tasks which obstruct ineffective solutions. This allows patients to use their own problem-solving skills.	1-13 1-hr	Questionnaire follow-up after intervention (no pre, just post)	1 year follow up postal questionnaire asking: Is the problem solved? and have new problems appeared? contacting G.Ps to ask if the problem is better, worse or the same.	48	Percentage of clients reporting that their problem was solved.	None	6

Lindfors et al (2012)	Helsinki Out-patient psychiatric services	Anxiety and depression	Brief Solution-Focused Therapy	Self-concept	12 1-hr	Randomised controlled trial	Structural analysis of social behaviour questionnaire (self-directed affiliation and self-directed autonomy, self-affirm, self-blame, self-neglect), Diagnostic interviews, BDI, SCL-90-G, SCL-90-A, defence styles questionnaire, inventory of interpersonal	326	Linear mixed models	Short and long term psychodynamic psychotherapy	14

							problems, quality of object relations scale				

Mireau (2009)	Adult Counseling Team, Mental Health Services (Saskatoon Health Region)	Depression, relationship difficulties, self-esteem/confidence, anxiety, anger, physical or emotional abuse or neglect, chemical dependency	Brief Solution-Focused Counselling	Clients strengths and success, focus on solutions	10 1-hr	Quasi-experimental	OQ-45.2, Scaling questions for change every session (Dejong& Berg, 2002) and asked clients what they found to be helpful about sessions. Clients were also asked about change that others in their lives were noticing.	304	Comparing waiting times, mean scores on OQ-45 symptoms distress compared within participants between session 1 and 4 using t-tests	none	7
Rhee et al	Callers to a suicide	Depression (suicide	Solution-	Identify and specify a	Open-	Randomised controlled	BDI, the Brief	85 (onl	Log linear analysis of dropouts, hierarchical	Common	10

(2005)	hotline (U.S., St Louis)	hotline)	Focused Brief Therapy	goal in the form of observable, quantifiable behaviours. Identify and replicate exceptions to problems, scaling questions, future, goal-oriented self-enhancement	ended	trial	Symptom Inventory (Derogatis & Melisaratos, 1983), the Brief Psychiatric Rating Scale (Overall & Borham, 1962), and the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). Visual Analogue Scale for depression 0 to 100. Rating of Therapist Scale (13	y 55 completed measures)	multiple regression analysis and effect size of partial eta square to compare difference in success rates between treatment conditions, paired sample t-tests of therapists rating of clients before and after and the clients rating of therapists	factors therapy or WL control	

							items that measured degree of satisfaction with the therapist)				
Smock et al (2008)	Urban, midwestern, university based community marriage and family therapy clinic (U.S.)	Substance abuse	Solution-Focused Group Therapy	Group future oriented 'miracle' question, scaling questions, team behind a two-way mirror	6 1.5 hr	Quasi-experimental	BDI, Substance Abuse Subtle Screening Inventory, questions evaluating social cost measures and OQ-45.2.	38	ANOVA, ANCOVA, paired samples t-test	Hazledon 'the primary recovery plan' group	11

Thorslund (2007)	Receiving care through the Swedish Health Insurance program in Värmland	Depression, anxiety, stress-syndrome and adjustment reaction	Solution-Focused Group Therapy	Generate solutions from within their own frame of reference.	8 3-hr	Quasi-experimental	OQ-45.2, SCL-90-G, Pain Beliefs and Perception Inventory (Williams & Thorn, 1989), and Visual Analogue Scales.	30	Between and within groups mixed ANOVA Design. Chi-square analysis for return to work data. Cohen's D effect size.	Waiting list	8
Rhodes and Jakes (2002)	Acute psychiatric ward (U.K.)	Psychosis	Solution-Focused Therapy	To use questions to find some 'solution' or small step to relieve painful experiences and calm down crises e.g. 'notice what you do when you overcome the urge to do X'	19 1-hr	Single case experimental design	BDI, BAI and three scales examining degree of conviction, pre-occupation and distress with belief or delusion (Chadwick, Birchwood, &	1	Score change pre, during and post intervention on questionnaires (t-tests)	None	7

							Trower, 1996; Fowler, Garety, & Kuipers, 1995).				

Bozeman (2000)	Health and counselling centres (Mendenhall and Jackson, Mississippi, U.S.)	Depression	Solution-Focused Brief Therapy (miracle question, scaling question, envision problem-free future in detail and turn it into achievable goals)	Future orientation	3 1-hr	Pre-test post-test quasi experimental design (control group)	BDI and Nowotny Hope Scale	52	ANCOVA	Past focused treatment plan	11

Polk (1996)	University of Georgia, EAP programme	Anxiety and Alcohol use	Solution-Focused Therapy	Treatment goals were set and developed into scales for the evaluation of outcome	6 1-hr	Single subject AB (baseline intervention) design (3 weeks baseline period and then weekly report)	Goals based scales, measures of abstinence from drinking (participant and spouse report) and work attendance.	1	Cumulative total of abstinence and work attendance presented in graphs	None	4
Deshazer (1986)	U.S. (Wisconsin)	Range of psychiatric problems	Solution-Focused Therapy	To change clients interactive behaviour so that a solution (a resolution of their complaint) can be achieved. Solution needs to fit with the constraints of the situation in	6 1-hr (Avg.)	Quasi-experimental Pre post intervention change in 'complaint' which was the target in therapy	Follow up telephone interview asking 'is your complaint better, the same or worse?'	28	Percentage of clients which had reached their goals i.e. solved their 'complaint'	None	7

				such a way as to allow a solution to develop.							

Measures key: BDI = Beck Depression Inventory, BAI = Beck Anxiety Inventory, SCL-90-G = Symptom checklist 90 Global severity Index, SCL-90-A = Symptom checklist 90 Anxiety Index, OQ-45.2 = Symptom Distress Scale

Quality of Research Methodologies Identified

Table 2. Quality score for Quantitative Studies (summary table)

Author(s)	Intervention score (0-3) *based on intervention being described, manualised,	Measures score (0-2) *based on use of validated measures which	Sampling Bias score (0-3) *Based on N>27, sampling method	Randomisation Bias score (0-3) *based on randomisation occurring, describing	Assessment Bias score (0-4) *based on independent assessors, standardized	Comparison Treatment score (0-2) *based on treatment as usual analysis and	Analysis Score (0-2) *based on intention to treat and appropriate analysis	Follow-up score (0-1) *based on follow up being completed	Total Quality Score (0-20)

	adherence measured	measure target of intervention	being appropriate and power calculation used	method of randomisation and independent randomisation	assessment, blinding, describing assessment process	active comparison treatment	methodology		
Knekt et al (2011)	2	1	3	2	2	2	2	1	15
Eakes et al, (1997)	1	1	1	0	1	0	1	0	5
Lambert et al (1998)	1	1	1	0	2	1	1	0	7
Wiseman (2003)	1	1	2	0	2	0	1	0	7
Macdonald (1994)	1	1	2	0	1	0	0	1	6
Lindfors et al (2012)	2	2	3	1	2	2	2	1	14
Mireau (2009)	1	1	2	0	1	0	1	0	7
Rhee et al (2005)	1	1	2	1	3	1	1	0	10
Smock et al (2008)	1	1	2	1	2	1	1	0	11
Thorslund (2007)	1	1	2	1	2	0	1	0	8
Rhodes and Jakes (2002)	1	2	0	0	2	0	1	1	7
Bozeman (2000)	1	2	2	2	2	1	1	0	11
polk (1996)	1	1	0	0	1	0	1	0	4
Deshazer	1	1	2	0	2	0	1	0	7

(1986)									

Table 3. Quality score for Quantitative Studies (detailed table)

Author(s)
Intervention described? (0-1)
Manual used? Adherence to manual measured? (0-2)
Total Intervention Score (0-3)
Measures Validated? (0-1)
Measures measuring target of intervention? (0-1)
total measures score (0-2)
sampling method score (0-2) (appropriate sampling method and power calc?)
N>27 (0-1)
total sampling bias score (0-3)
randomised? (0-1)
described process of randomisation? (0-1)
Independent randomisation? (0-1)
Total Randomisation Bias score (0-3)
independent assessors? (0-1)
standardised assessment? (0-1)
blind? (0-1)
assessment process described? (0-1)
total assessment bias score (0-4)
TAU - Treatment as usual i.e. last observation carried forward, used for missing
active treatment alternative? (0-1)
total score for comparison treatment (0-2)
appropriate analysis method? (0-1)
intention to treat used? (0-1)
total analysis score (0-2)
FU completed? (0-1)
Total follow-up score (0-1)
Total Quality Score (0-20)

Knekt et al (2011)	1	1	2	1	0	1	2	1	3	0	1	1	2	0	1	0	1	2	1	1	2	1	1	2	1	1	15
Eakes et al, (1997)	1	0	1	1	0	1	1	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0	0	5
Lambert et al (1998)	1	0	1	1	0	1	1	0	1	0	0	0	0	0	1	0	1	2	0	1	1	1	0	1	0	0	7
Wiseman (2003)	1	0	1	0	1	1	1	1	2	0	0	0	0	0	0	1	1	2	0	0	0	1	0	1	0	0	7
Macdonald (1994)	1	0	1	0	1	1	1	1	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	6
Lindfors et al (2012)	1	1	2	1	1	2	2	1	3	1	0	0	1	0	1	0	1	2	1	1	2	1	1	2	1	1	14
Mireau (2009)	1	0	1	1	1	2	1	1	2	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	0	0	7

Rhee et al (2005)	1	0	1	1	0	1	1	1	2	1	0	0	1	1	1	0	1	3	0	1	1	1	0	1	0	0	10
Smock et al (2008)	1	2	1	1	0	1	1	1	2	1	0	0	1	0	1	0	1	2	0	1	1	1	0	1	0	0	11
Thorslund (2007)	1	0	1	1	0	1	1	1	2	1	0	0	1	0	1	0	1	2	0	0	0	1	0	1	0	0	8
Rhodes and Jakes (2002)	1	0	1	1	1	2	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	1	0	1	1	1	7
Bozeman (2000)	1	0	1	1	1	2	1	1	2	1	1	0	2	0	1	0	1	2	0	1	1	1	0	1	0	0	11
polk (1996)	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	4
Deshazer (1986)	1	0	1	0	1	1	1	1	2	0	0	0	0	1	0	0	1	2	0	0	0	1	0	1	0	0	7

Table 4. Quality score for Qualitative Studies (summary table)

Author(s)	Intervention Score (0-2) *based on intervention being described and adherence	Methodology Score (0-5) *based on it being described (i.e. is it clear how data were collected? interviews? topic	Sampling Bias Score (0-3) *based on stating the sampling method (i.e. how were participants selected?), being	Assessment Bias Score (0-2) *based on researchers perspective/orientation being stated and role of	Analysis Score (0-7) *based on analysis being described (i.e. data saturation discussed? in-depth description	Follow-up score (0-1) *based on follow up being completed	Total Quality Score (0-20)

	measured	guide? tape recordings? notes?) justified (i.e. is qualitative methodology appropriate? does the design address the aims of the research?), pre-piloted interview or questionnaire questions, context of observation described, measures the target of the intervention.	appropriate to question/aims of research (i.e. explained why these participants were the most appropriate for meeting the aims of the study?), defining sample characteristics	potential bias examined (i.e. critically examined how relationship between researchers and participants may have affected research questions, sample recruitment, location and data collected).	of data analysis? clear how categories/themes were derived from the data?), more than one researcher/research er bias examined, discrepant results accounted for, themes fed back to participants, representative quotes, extracts numbered, coherent/plausible explanation of data found (i.e. sufficient data presented to support findings?).		
Metcalf and Thomas (1994)	0	3	3	0	2	0	8
Gail, Jerry & Newfield (1992)	1	3	1	0	4	0	9

Research Methodologies Identified

Sixteen studies met selection criteria, 14 of the studies used were quantitative research studies and 2 were qualitative. Multiple research methods were used to assess SFT when it was implemented in multiple formats including; individual (n=10), group (n=3), couples (n=1) as part of a one off self-harm assessment (n=1) and including a screen and reflecting team (n=1). Each study was given a quality score based on a mix of scoring criteria (see tables 2, 3 and 4). Multiple research methodologies and measures were used within each of the studies which will be discussed here.

quantitative.

methodologies

Eight of the studies used a quasi-experimental research design measuring pre-post intervention change in questionnaire scores (Bozeman, 2000; Eakes, Walsh, Markowski, Cain, & Swanson, 1997; Knekt et al., 2011; Lambert, Okiishi, Finch, & Johnson, 1998; Mireau & Inch, 2009; Smock et al., 2008; Thorslund, 2007; Deshazer, 1986). Six of these studies included a control group, 4 of which were active control groups (e.g. psychodynamic therapy) (Bozeman, 2000; Knekt et al., 2011; Lambert et al., 1998; Smock et al., 2008). Three of these studies also used random assignment (Bozeman, 2000; Smock et al., 2008; Thorslund, 2007). One study used a post-intervention questionnaire follow-up design (no pre data was collected) (Macdonald, 1994) and another study calculated recovery rates based on a cut off on a measure and also presented dose-response curves on graphs which plotted the number of sessions of SFT received against the percentage of people who recovered (Lambert et al., 1998). Whether or not the patient presented with self-harm within 1 year post intervention as well as pre-post intervention change on a SFBT measure was also used by another study (Wiseman, 2003). Two studies were randomised controlled trial's (Lindfors, Knekt, Virtala, & Laaksonen, 2012; Rhee, Merbaum, Strube, & Self, 2005) and another two studies used single case experimental design's which included using baseline and pre-post intervention data (Polk, 1996; Rhodes & Jakes, 2002). Studies varied in sample size from 506 (Knekt et al., 2011) to 1 (Polk, 1996).

The quality scores of the studies varied from 4 (single case experimental design) to 14 (randomised controlled trial, (Lindfors et al., 2012) and 15 (controlled quasi-experimental, (Knekt et al., 2011). This indicates that the most valid and reliable research methodology

to use is an RCT. The quasi-experimental studies varied in their quality according to whether or not methods employed to reduce bias and improve validity (e.g. blind assessors, valid questionnaires and control groups, see full table in appendix) were used.

measures used

Multiple outcomes were measured and the questionnaire measures used to measure each of the outcomes are listed below.

i) Depression and Anxiety

The Beck Depression Inventory (BDI) (Beck, Erbaugh, Ward, Mock, & Mendelsohn, 1961) was used in 6 studies to measure depression symptoms. The Hamilton Depression and Anxiety Rating Scales (Hamilton, 1967) and a Visual Analogue Scale for Depression (0 to 100) were also used in 2 studies. The Symptom Checklist Anxiety Scale (SCL-90-A) (Beck, Brown, Epstein, & Steer, 1988; L. Derogatis, Rickels, & Rock, 1976) and the Beck Anxiety Inventory (Beck et al., 1988) were used in 4 studies to measure anxiety.

ii) Work Ability

The Work Ability Index and the Work-subscale of the Social Adjustment Scale were used in one study to measure work ability (Knekt et al., 2011).

iii) Problem Solved/Goal Reached

Whether or not the problem was solved/goal was reached was measured using rating scales inherent in the SFT approach, which included goals based scales/scaling questions for change every session (Dejong & Berg, 2002), a postal questionnaire asking ‘Is the problem solved?’, contacting participant’s G.Ps to ask if the problem is better/worse/the same (Macdonald, 1994) and a follow up telephone interview asking the participant 'is your complaint better, the same or worse?' (Deshazer et al., 1986).

iv) Interpersonal Difficulties/Social Adjustment

Social and interpersonal difficulties were measured using the Structural Analysis of Social Behaviour Questionnaire, which includes a measure of self-concept (i.e. self-directed affiliation and self-directed autonomy, self-affirm, self-blame, self-neglect) (Erickson & Pincus, 2005), the Inventory of Interpersonal Problems (Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988), questions evaluating social cost measures, the Defence Styles

Questionnaire and the Quality of Object Relations Scale (Lindfors et al., 2012). Asking clients the change that others in their lives were noticing were also used (Mireau & Inch, 2009).

v) Substance Abuse

The Substance Abuse Subtle Screening Inventory (SASSI) (Lazowski, Miller, Boye, & Miller, 1998) and measures of abstinence from drinking (participant and spouse report) were used to measure substance abuse.

vi) Delusion

One study used three scales examining degree of conviction, pre-occupation and distress with belief or delusion (Chadwick, 1999; Freeman, Garety, Kuipers, Fowler, & Bebbington, 2002).

vii) Pain

The Pain Beliefs and Perception Inventory (Williams & Thorn, 1989) was used to measure pain in one study.

viii) Hope

The Nowotny Hope Scale was used to measure hope in one study (Bozeman, 2000).

ix) General psychological symptoms

General psychological symptoms were measured using the Perceived Psychological Functioning Scale (Lehtinen et al., 1991), the Outcome Questionnaire, which measured symptomatic distress, interpersonal problems, and social role adjustment (Lambert et al., 1996), diagnostic interviews, the SCL-90 Global Severity Index (Derogatis et al., 1976), the Symptom Distress OQ-45 Scale (Lambert et al., 1996) the Brief Symptom Inventory (BSI) (Derogatis & Melisaratos, 1983) and the Brief Psychiatric Rating Scale (Overall & Gorham, 1962).

x) Life satisfaction/therapist satisfaction

The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) and Rating of Therapist Scale (13 items that measured degree of satisfaction with the therapist) (Rhee et al., 2005) were used in two studies to measure satisfaction with life and therapist. Visual analogue scales and asking clients what they found to be helpful about sessions were also used.

xi) Self-harm

Repeat presentation to A&E with self-harm was measured in one study.

analysis

Multiple methods of analysis were appropriately implemented according to the research design employed. Data was compared both within participants (i.e. an individual's change in scores pre and post intervention) and between participants (i.e. the difference in change in scores between participants who received SFT and those that did not). Continuous questionnaire data completed by/with the participant (e.g. depression scale scores) was collected in the majority of studies and the analysis methods included; linear mixed models (n=2), ANOVA (n=3), ANCOVA (n=2), hierarchical multiple regression models (n=1) and t-tests (n=5). Binary data (e.g. yes/no return to work data) analysis was completed using logistic regression modelling (n=1) and chi-square analyses (n=1). Therapist report was also used in one study and analyzed using paired sample t-tests. Effect sizes (n=2), dose-response analyses (n=1), log linear analysis of drop outs (n=1) percentage of clients who met their goals (n=1) calculating and comparing recovery rates (n=1), between groups comparison of people presenting at A&E with self-harm (n=1) and cumulative totals (n=1) were also used.

qualitative.

methodologies and analysis

Both of the qualitative research studies included were based on transcribing and analyzing either a therapy session (Gale & Newfield, 1992) or post-intervention interview with participants (Metcalf & Thomas, 1994). Conversation analysis (Gale & Newfield, 1992) and thematic analysis using Taylor and Bodgan's (1984) methodology were used to assess how language is used to elicit new constructions of reality using nine descriptive categories of the linguistic strategies employed (Gale & Newfield, 1992) and how respondents perceived therapy and the process of change using descriptive themes (Metcalf & Thomas, 1994). The quality scores of the two studies were 9 and 8, which was similar.

Discussion

Currently there is an evidence based culture used by the NHS to select which psychological interventions should be used in mental health services (Clark, 2011). There is also a strong bias towards quantitative evidence, with randomized controlled trials being

included as the ‘gold standard’ (Tanenbaum, 2005). This review aimed to answer the research question ‘how do solution-focused therapists/researchers conduct research to measure the effectiveness of their intervention when one adult member of the system has a mental health concern?’ It aimed to highlight the research methodologies available to solution-focused therapists/researchers, in hopes that it may support solution-focused therapists to complete research and publish evidence of the effectiveness of SFT. This review has highlighted that the majority of research measuring the effectiveness of solution-focused therapy for adults with a mental health problem is measured using quantitative methodologies; this is particularly interesting given the arguments presented in the Carr (2009; 2014) and Stratton et al. (2010) reports, which suggested that many solution-focused systemic therapists believe that quantitative research methodologies do not fit well with social constructionist epistemology and systemic ways of working. This review suggests that it is possible to measure solution-focused therapy in a quantitative way, which is necessary in the evidence based culture of the NHS.

The lack of qualitative based research is interesting and contradicts what Dallos and Draper (2010) stated (i.e. that solution-focused therapists prefer qualitative research methodologies). This could be explained by the fact that a lot of the papers which used qualitative research methodologies did not include a sample with a diagnosed mental health problem, and were therefore excluded. Solution-focused therapists/researchers cannot ignore the fact that the NHS values improvements in recognized diagnoses and should consider stating the mental health diagnoses of the participants (if known) when presenting research. This review also highlighted that solution-focused therapists have a tendency to present case descriptions to illustrate application to therapy, rather than using research methodologies; 9 of the 27 full text papers which were reviewed were excluded because they were descriptive rather than evaluative research. These kinds of papers will not be considered in NHS commissioning meetings, but could have been considered if they had been presented as a series of single case experimental designs. Conversation analysis (Gale & Newfield, 1992) and thematic analysis (Braun & Clarke, 2006) are qualitative research methodologies that are available but do not seem to be being employed very regularly. It has been argued that these methodologies complement the social constructionist systemic theory more effectively because they are focused on the language used by participants (Burck, 2005).

It is interesting to note that quantitative studies used questionnaires to measure specific (e.g. anxiety, depression and delusions) and general diagnostic symptoms (e.g. symptomatic distress, psychological functioning). Visual analogue scales were also used to measure depression. External behavioral outcomes such as change in destructive behaviors (e.g. drug addiction and self-harm) and work ability were also measured, along with physical health outcomes (e.g. pain). This suggests that SFT can be used with people with an array of problems which are managed within the NHS. More general factors such as hope, self-concept, what clients found helpful in session and life satisfaction were also measured, which have been suggested as being some of the most important factors to clients (Keyes, 2002).

Questionnaires which link to social constructionist systemic theory (Dallos & Draper, 2010) by focusing on measuring interpersonal difficulties (e.g. improved communication), social adjustment and change that the clients family members were noticing, were also used (Mireau & Inch, 2009). It is interesting to note that in the studies that were excluded as participants did not have a mental health problem, the problem that the couple presented with (e.g. relationship dissatisfaction) was often unclear. Some solution-focused therapists may argue that this is due to the fact that the focus is on solutions rather than problems, but this lack of clarity prevents the efficacy of solution-focused therapy being shown. Whether or not the problem which clients were working on was solved/their goal reached was measured in some of the studies included in this review. A few studies also reported the use of scaling questions (n=2) and goal based scales (n=1) which measure the client's movement towards their solution/goal. This shows it is possible to measure outcomes which are directly linked to the targets of solution-focused therapy. It is interesting to note that only 5 of the 16 studies included measured the target of SFT, two of which were qualitative studies.

The variance in research quality scores between studies which use the same research methodology is interesting. Studies which used quasi-experimental designs and scored lower quality scores (Eakes et al., 1997; Mireau & Inch, 2009; Thorslund, 2007) did not use independent researchers to complete randomisation or assessment. This means that the results may have been affected by confounding variables (e.g. participants who were more motivated may have been more likely to be randomised to active treatment) or researchers may have unconsciously given improved questionnaire scores to participants they knew to be engaged in SFT. This means that results presented may not be valid, which reduces the

strength of the research methodology. Quasi-experimental studies with lower quality scores did not engage their control groups in an active treatment alternative, which means confounding variables (e.g. relationship with a therapist) could explain positive outcomes (rather than SFT). Intention to treat/last observation carried forward analyses and follow up were also not used in the studies which had lower quality scores. This reduces the confidence that the sample analysed represents the effect of SFT as it does not account for people who dropped out, which could have been an effect of SFT. A lack of follow-up also reduces confidence that the effects of SFT were maintained. A lack of a manual/assessment of adherence to a manual was also noted in many studies which means that SFT may not have been implemented correctly and reduces the validity of the research methodology/results found. Four of the 16 studies had a sample size of less than 28, which has been shown to be a statistically robust sample size for obtaining valid results (Tarrier & Wykes, 2006), but two of these studies were single case experimental designs. Overall this review has highlighted multiple ways that the quantitative research methodologies could be improved to increase the validity and reliability of results found.

The quality assessment scores of the qualitative studies were low due to multiple factors which will be discussed here. The theoretical view point of the researcher completing the analysis was not accounted for in either study, which could mean that the results shown were biased towards the researcher's view point. Neither study presented sufficient data to support the themes found or stated that they had accounted for data which were not in line with the themes. There was also no information to suggest that data had been analyzed until data saturation occurred in either study. The method of sampling used was also not stated. This suggests that the themes presented may not have represented the sample and therefore bias may have affected the results. Addressing these qualitative research methodology factors would ensure the validity and reliability of results. However it should be noted that even though the quality scores calculated for this review were based on specific pre-determined criteria which were discussed with the second author it is possible that researcher bias/error may have affected the quality scores given to individual studies.

Conclusion

Overall we can see from this review that SFT can be evaluated using many valid and reliable research methodologies and questionnaires. The ethos towards evidence based practice in the NHS means that it is vital that research evaluating the effectiveness of SFT

in comparison to other therapeutic modalities is carried out. It is hoped that this review will encourage solution-focused therapists/researchers to evaluate and publish research related to the work that they are doing using appropriate research methodologies which produce valid and reliable results. It is also hoped that further research will enable SFT to be considered by commissioners for use in the adult mental health national health services.

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Service Improvement Project

Title: Integrating Formulation into Assessment in a Community Mental Health Recovery Team to Improve Recommendations for Patient Care

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Word Count: 5000 (excluding Tables, References, Lay Summary and Appendicies).

Introduction

The principles of formulation are to provide a framework for drawing together a range of different factors (biological, psychological and systemic) that may contribute to the development and maintenance of mental health (MH) problems (Butler, 2008; Gardner, 2005; Ingram, 2006; Kinderman, 2001; Lapworth & Sills, 2011; Weerasekera, 1995). The use of formulation at the point of assessment can therefore aid the development of coherent and targeted treatment plans across MH teams (Butler, 2008; DCP, 2011). The Petherton community MH recovery team considered the implementation of the 5Ps formulation (Weerasekera, 1995) following its introduction at the team's continuing professional development day in November 2013.

Why was it important for the service to examine the use of the 5Ps formulation?

Recent guidelines (BPS, 2009; DCP, 2011; DOH, 1999) have stated that multidisciplinary MH teams should develop more psychologically informed services using the 5Ps formulation model (Weerasekera, 1995) to improve patient MH care outcomes. Weerasekera's multiperspective case formulation (1995) includes the 5P's; presenting problem and predisposing, precipitating, perpetuating and protective factors. Historically the assessment staff working in the Petherton community MH recovery team in South Bristol have used a medical model for understanding a patient's mental health problem (MHP). However, medical models have limitations in MH and it was felt that communication, recommendations made and the assimilation of the assessment information to highlight what was influencing a patient's MHP could be improved. The clinical psychologist and first author (trainee clinical psychologist) working in the Psychological Therapies Service at Petherton therefore introduced the 5Ps formulation model (Weerasekera, 1995) to guide the recommendations made in assessment meetings and the writing of assessment letters. Training in the use of formulation (including the 5Ps) was presented by two Clinical Psychologists on an all staff training day in November 2013. Follow-up training was provided to assessment staff on an individual basis by the first author, a trainee clinical psychologist, in Feb/March 2014. 5Ps Information sheets (see appendix A) and 5Ps assessment letter templates (see appendix B) were developed by the first author and service manager and provided to all assessment staff. The staff who run the assessment meetings were also given 5Ps assessment meeting forms to complete (see

appendix C) which were developed by the first author and service manager. The service wanted to establish whether or not the 5Ps was being used, the effects of training and barriers to implementation to enable further recommendations for service improvement. Therefore the first author gathered evidence to ascertain 5Ps use and inform further recommendations for service improvement.

Brief Literature Review

There is evidence that the use of formulation can help staff to make initial hypotheses about what maintains patients' problems (Berry, Barrowclough, & Wearden, 2009; Craven-staines, Dexter-Smith, & Li, 2010; Summers, 2006). Formulation enables staff to decide which issues or problems should be prioritised (Butler, 2008; DCP, 2011; Summers, 2006; Weerasekera, 1995) and increases staff confidence in treatment recommendations (Hood & Johnstone, 2010; Kuyken, Fothergill, Musa, & Chadwick, 2005; Onyett, 2007). Formulation has also been shown to improve team working and communication as it can "achieve a consistent team approach" by enabling teams to use the same language and way of understanding a client's MHP (Butler, 2008; Craven-staines et al., 2010; DCP, 2011; Summers, 2006). The use of formulation has been acceptable and helpful to staff in other MH care settings (Berry et al., 2009; Christofides, Johnstone, & Musa, 2012; Johnstone & Dallos, 2013), especially if it supports the core assessment process rather than being a separate piece of work (Craven-staines et al., 2010).

Education (Barrett, Sellman, & Thomas, 2005), interactive staff training including "coming alongside" staff in a collaborative, non-expert stance (Berry et al., 2009; Corrigan & McCracken, 1997; Craven-staines et al., 2010; Davis et al., 1999), and "chipping in" (where psychologists input a psychological perspective where possible when cases are discussed in teams) (Christofides et al., 2012; Johnstone & Dallos, 2013) are suggested methods for effectively integrating formulation into teams. The Department of Health policy states that "collaborative working leads to improved service delivery" (DOH, 1999; Gerrish, 2000). It is suggested that psychologists should take an active role in initial formulation training as staff can feel resistant towards change because of the competing demands in the workplace (Berry et al., 2009; Hood, Johnstone, & Musa, 2013). The use of simple formulation templates (Clarke, 2008; Craven-staines et al., 2010; Lake, 2008; Whomsley, 2009) and supervision from psychology can aid integration of formulation into

team working. However it is suggested that following the initial support from psychology, it is important that staff are allowed to integrate formulation into their work themselves; thus creating a psychologically-minded culture which is not dependent on input from the psychology team (Craven-staines et al., 2010). Further to this, research shows that the organisational culture, systems and structure of the service need to change at the same time as the individual skills of the staff for effective implementation to occur (Berry et al., 2009; Corrigan & McCracken, 1997; Craven-staines et al., 2010; DCP, 2011; Panzano & Herman, 2005).

Aims and Objectives

1) To identify whether staff are using the 5Ps framework to summarise and communicate all the factors which influence the patient's MHP (i.e. predisposing, precipitating, perpetuating and protective factors) in assessment meetings and assessment letters.
2) To assess whether the recommendations made in assessment meetings and letters address the factors that influence the patient's MHP (i.e. predisposing, precipitating, perpetuating and protective).
3) To assess the effects of staff training on the use of the 5Ps
4) To recommend strategies that will improve the use of the 5Ps and recommendations made for patient MH care based on findings from 1 & 2 and feedback from the assessors.

Method

Participants

Participants were members of the multi-disciplinary team (MDT) who assess the MH of service users referred to the Petherton community MH recovery team (i.e. the assessment staff (n=6). Adults suffering from severe and enduring mental health problems (such as severe anxiety/depression, psychosis, obsessive compulsive disorder and personality disorders) were assessed by assessment staff.

The professional roles of the MDT who attend the assessment meetings include:

1. Psychiatry
2. Clinical Psychology
3. Assessment Staff (Psychiatric Nursing, Occupational Therapy, Social Work)
4. Management (who run the meeting and take notes)

Measures and Procedure

Case note analysis of every 10th electronic case note formulation summary/assessment letter/assessment meeting note written between 31st March-31st July 2014 was used by the first author to assess use of 5Ps. 'Yes'/'No' criteria were applied to ascertain if the 5Ps were included (see tables in appendix F). A semi-structured feedback questionnaire was also completed individually by assessment staff between 1st August and 30th September (see appendix E) and analysed by the first author using Braun and Clarke's inductive and semantic thematic analysis (Braun & Clarke, 2006). Questionnaire feedback from staff was also presented using a word cloud to provide a visual image of the frequency of words used by staff.

Reliability and validity of the measures/data used

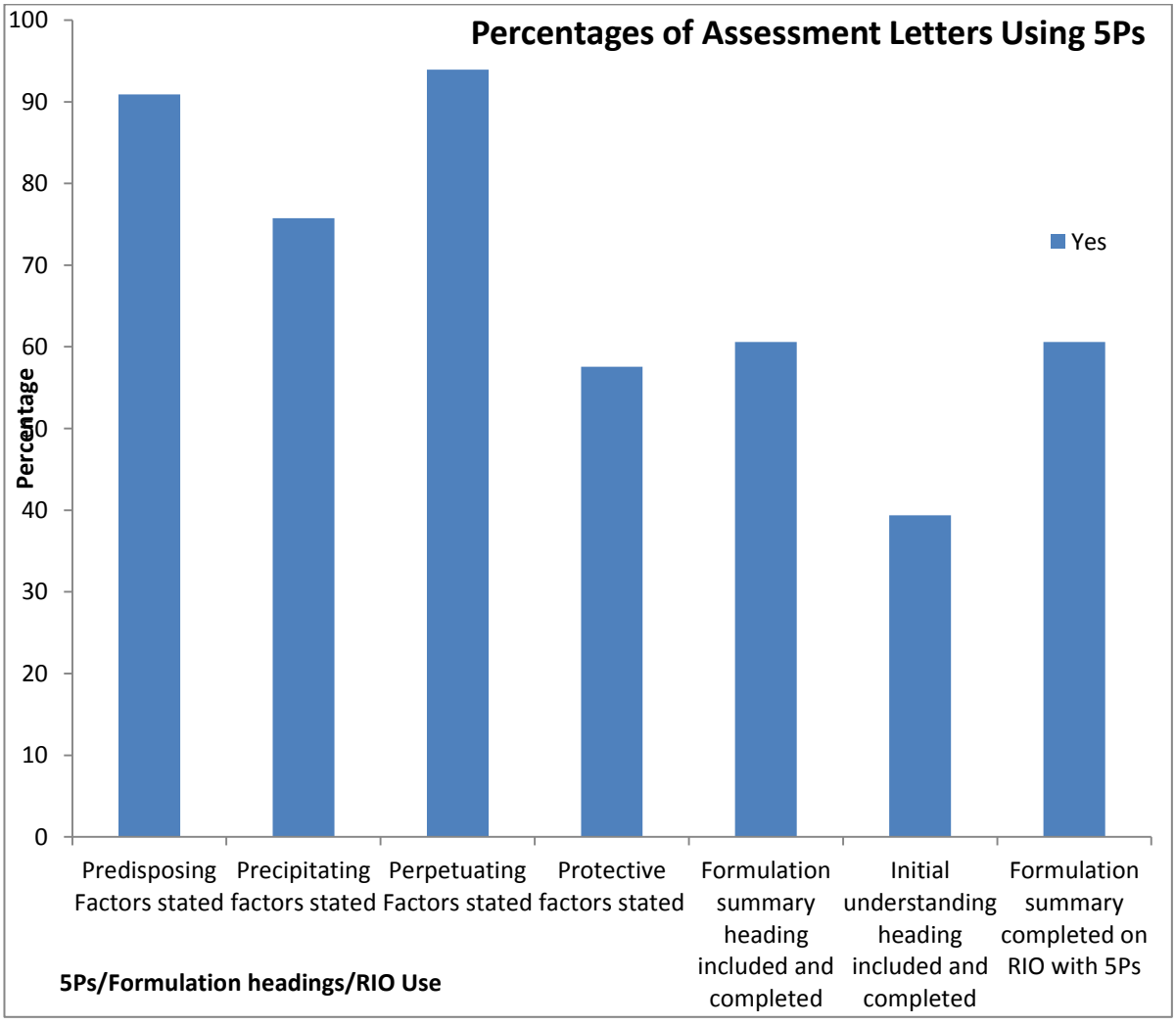
To reduce researcher bias and ensure practicable data collection every 10th assessment letter/meeting note/formulation case note was analysed and pre-planned 'yes' or 'no' criteria were used to define whether each of the 5Ps had been used. Over 30 assessment letters/meeting notes were analysed to ensure any effect would have been detected. The idiosyncratic open-ended questionnaire was generated by the first author with the clinical psychologist according to the outcomes the service were interested in and analysed using Braun and Clarke's (Braun & Clarke, 2006) inductive and semantic thematic analysis. A grounded theory inductive approach was used. All questionnaire answers were transcribed and initial codes were created by the first author. Codes were then collated into initial themes describing repeated patterns of meaning. A thematic map of main themes and sub themes was developed. Themes were reviewed for internal homogeneity and cross-checked in relation to the whole data set to ensure they were representative. This included some themes being re-developed, merged into another theme or made redundant due to codes within themes being incoherent or themes overlapping. Themes were crosschecked and agreed through discussions with another clinical psychology trainee who had analysed the transcripts separately. This ensured inter-rater reliability and reduced the researcher bias of the first author (who was biased towards the 5Ps being successful); thus improving result validity.

Results

Objective 1: Are staff using the 5Ps framework in assessment meetings and assessment letters?

Use of 5Ps in assessment letters

Graph 1 shows the percentages of the assessment letters which included each of the 5Ps/the formulation headings and the use of the electronic formulation section on RIO.



Graph 1. Percentages of assessment letters using 5Ps

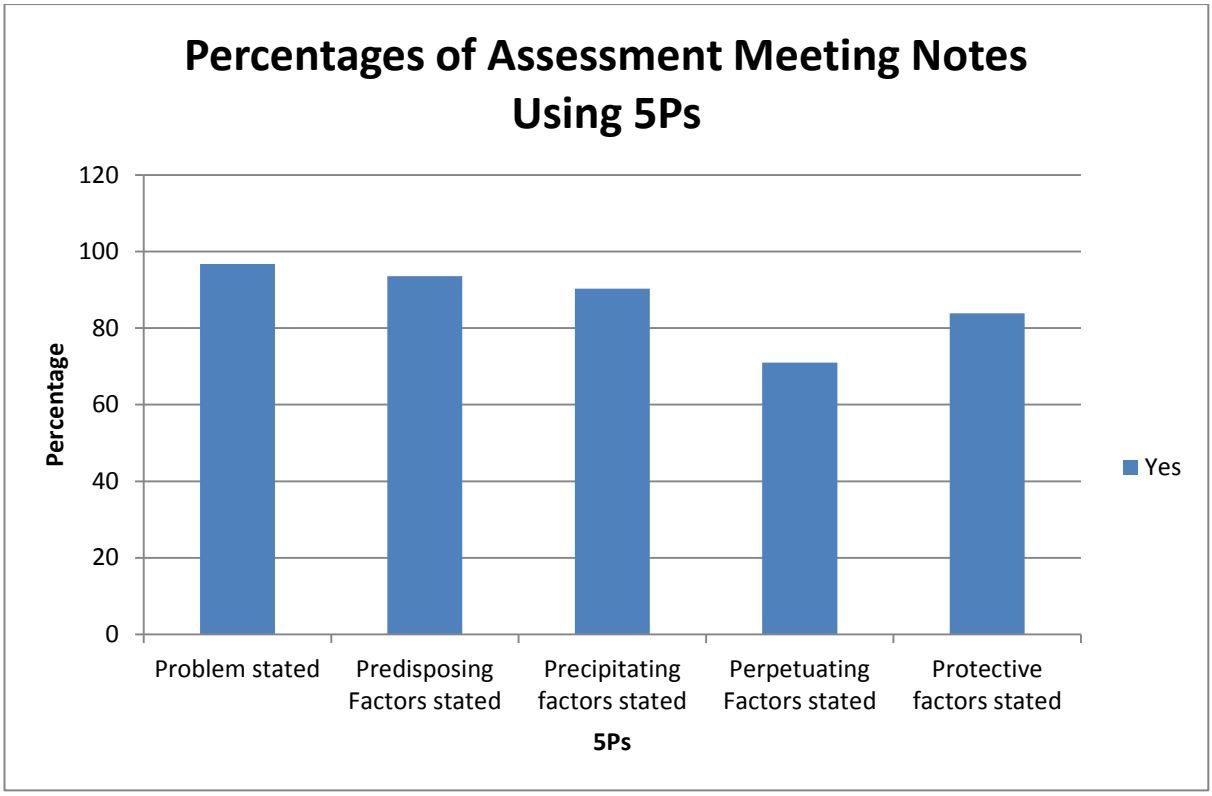
Predisposing, precipitating and perpetuating factors are stated in more than 75% of the letters, but protective factors are only stated in 57.6% of the letters, which may detract from patient care planning because protective factors can form a crucial part of treatment planning (Johnstone & Dallos, 2013). The formulation summary heading was used in 60% of the letters, but the initial understanding heading was only used in 39% of the letters,

which could suggest it was less valued. It was noted during analysis that 'clinical impression' was often used instead of the 'initial understanding' heading and some of the assessment letters also included one merged heading called 'formulation and clinical impression'. This suggests that multiple headings may be unnecessary, which is in line with keeping formats as simple as possible when instigating change in staff teams (Lapworth & Sills, 2011; Onyett, 2007). The heading 'what the service user wants' was also used in one letter. The formulation summary section on RIO was only completed for 60% of the letters, which is a team communication tool and could be detrimental to evidence based treatment planning if not used (Panzano & Herman, 2005).

Some stylistic differences in the use of the 5Ps were also noted during analysis; the 'perpetuating factors' were usually behavioural in nature (e.g. 'no occupation'). Other possible treatment targets such as negative automatic thoughts (Beck, 1995) attachment/emotion regulation difficulties (Bretherton, 1995) or social withdrawal (Beck, 1995) were less common. Assessors were very effective at listing predisposing factors, which staff are more familiar with (Hood et al., 2013), but selecting the predisposing factors which linked directly to the MHP was less common and is important for patient care planning (Johnstone & Dallos, 2013). Some of the letters did not clearly state the MHP which the client was being treated for, which is understandable as clients often present with multiple MHPs over multiple episodes, but can impede coherent evidence-based MH treatment planning (Panzano & Herman, 2005). A summary of how the factors listed within each of the 5Ps affected the client's MHP was also not commonly reported and suggests assessors may be unclear on how to link the 5Ps with the presenting MHP (Hood et al., 2013). Precipitating factors related to the 'current episode' of the MHP were not always mentioned, but a 'situation' heading was used in some letters, which may orientate the reader to the factors that may have precipitated the MHP (Johnstone & Dallos, 2013).

Use of 5Ps in assessment meeting notes

Graph 2 shows the percentages of the assessment meeting notes which included the 5Ps.



Graph 2. Percentages of Assessment Meeting Notes using 5Ps

All of the 5Ps were included in more than 70% of the notes, but perpetuating factors were stated the least at 70.1%. This is consistent with the literature and has been suggested to be detrimental to care planning and communication amongst MDT members (Craven-staines et al., 2010). The 5Ps form was used in 100% of the meeting notes and may explain the high levels of 5Ps use, as the use of such forms has been found to be helpful for facilitating change in MDTs (Craven-staines et al., 2010).

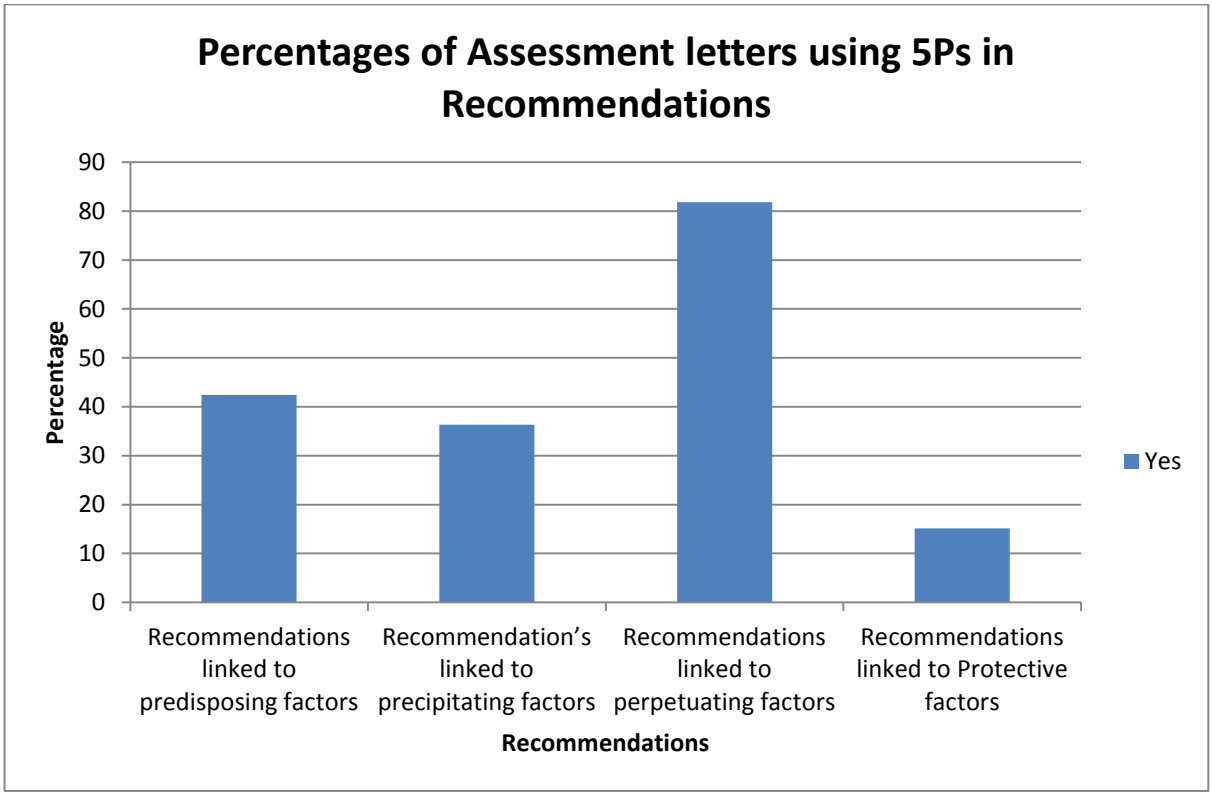
Some other details were also noted during analysis; the precipitating factors mentioned were not always clearly linked to the current episode of the MHP e.g. 'back injury 2 years ago.' Treatment targets such as thoughts, feelings, behaviours and physical problems were well listed as 'perpetuating factors' in the assessment meeting notes, but this did not seem to transfer to the assessment letters, which may be due to difficulties in communication in assessment meetings (Barrett et al., 2005). The phrase 'no drink or drugs' was also stated quite often in the perpetuating box, which may be related to the prompts on the assessment meeting 5Ps form. It seems that the protective factors are stated in relation to suicide risk, which may explain why protective factors were stated more commonly in assessment

meeting notes (83.8%) than assessment letters (57.5%), but 'psychologically minded' and 'currently accessing therapy with LIFT' were also included.

Objective 2: Are staff using the 5Ps framework in recommendations in assessment meeting notes and assessment letters?

Use of 5Ps in recommendations in assessment letters

Graph 3 shows the percentages of the assessment letters that included recommendations linked to each of the 5Ps.



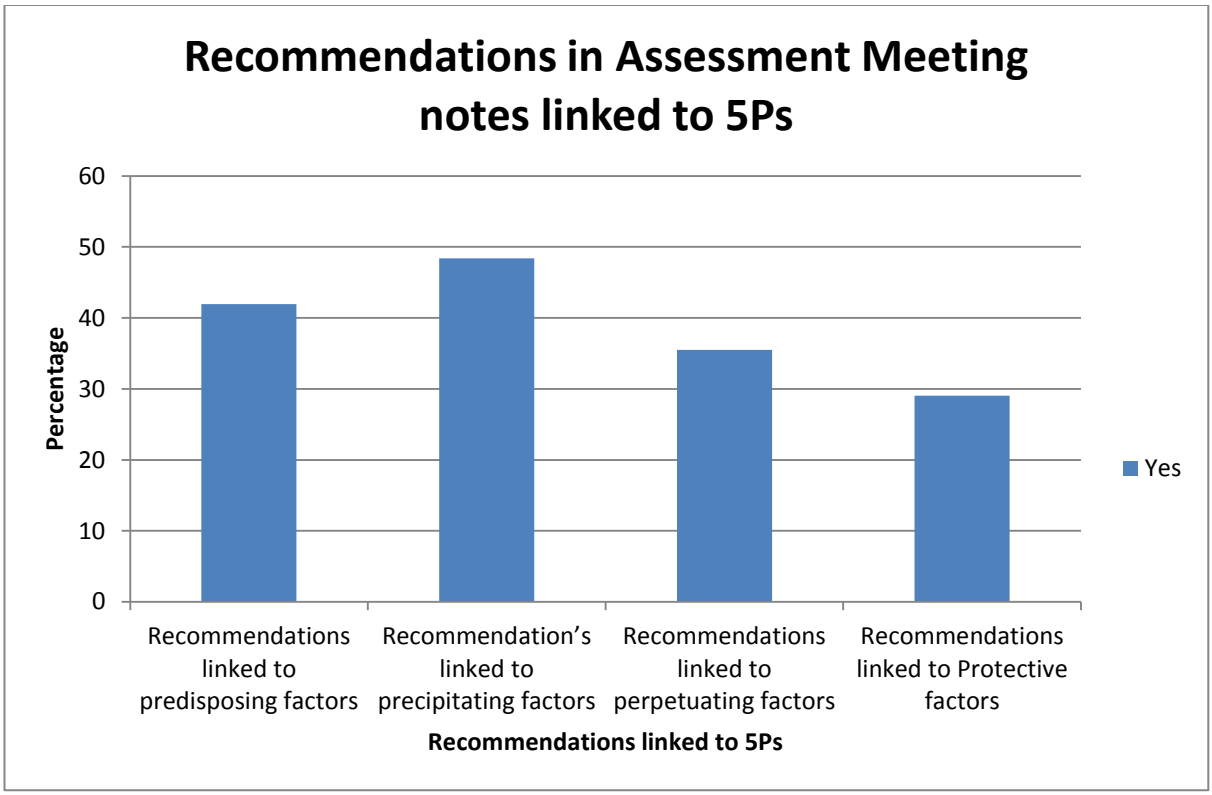
Graph 3. Percentages of recommendations in assessment letters using 5Ps

81.1% of the assessment letters included recommendations that were linked to perpetuating factors, which is in line with good practice guidelines (DCP, 2011). However, the percentage of letters linking predisposing, precipitating and protective factors to recommendations were much lower at 42.4%, 36.36% and 15.1%, respectively. 27.27% of the letters included recommendations that were not clearly linked to any of the 5Ps, which is not conducive to an effective treatment plan (Panzano & Herman, 2005).

When going through the assessment letters the recommendation 'referred to recovery team' was common and rarely linked to any of the 5Ps (i.e. the details of the treatment the recovery team were recommended to implement using the 5Ps was not stated). Medication was often a recommendation but was not linked to/stated as a protective factor. Further to this, large amounts of narrative often made it hard to understand the reasons behind the recommendations. Summaries which clearly linked the recommendations to the perpetuating factors were uncommon, which may be detrimental to patient care as linking a client's MHP to perpetuating factors has been shown to motivate a client to engage in treatment (Johnstone & Dallos, 2013).

Use of 5Ps in recommendations in assessment meeting notes

Graph 4 shows the percentages of the assessment meeting notes that included recommendations linked to each of the 5Ps.



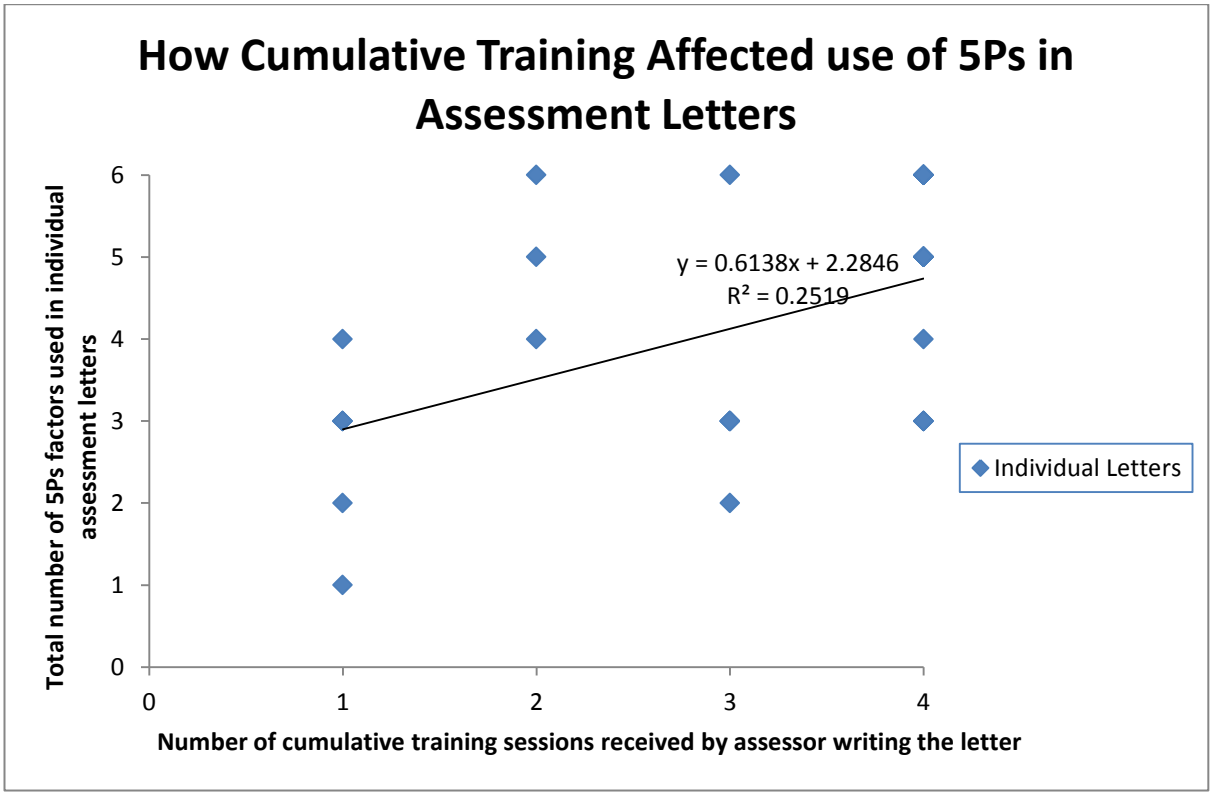
Graph 4. Percentages of recommendations in meeting notes that were linked to 5Ps

Less than 50% of the meeting notes included recommendations that were linked to the 5Ps. Only 29% and 35.5% of the meeting notes included recommendations linked to protective or perpetuating factors respectively. Recommendation's linked to precipitating factors were the most common at 48%. Twenty-six percent of the recommendations were not linked to any of the 5Ps (e.g. medication was recommended but was not stated as a protective factor, the client was referred to the recovery team, but it was not clear what for). Recommendations rarely addressed all of the 5Ps factors which were stated.

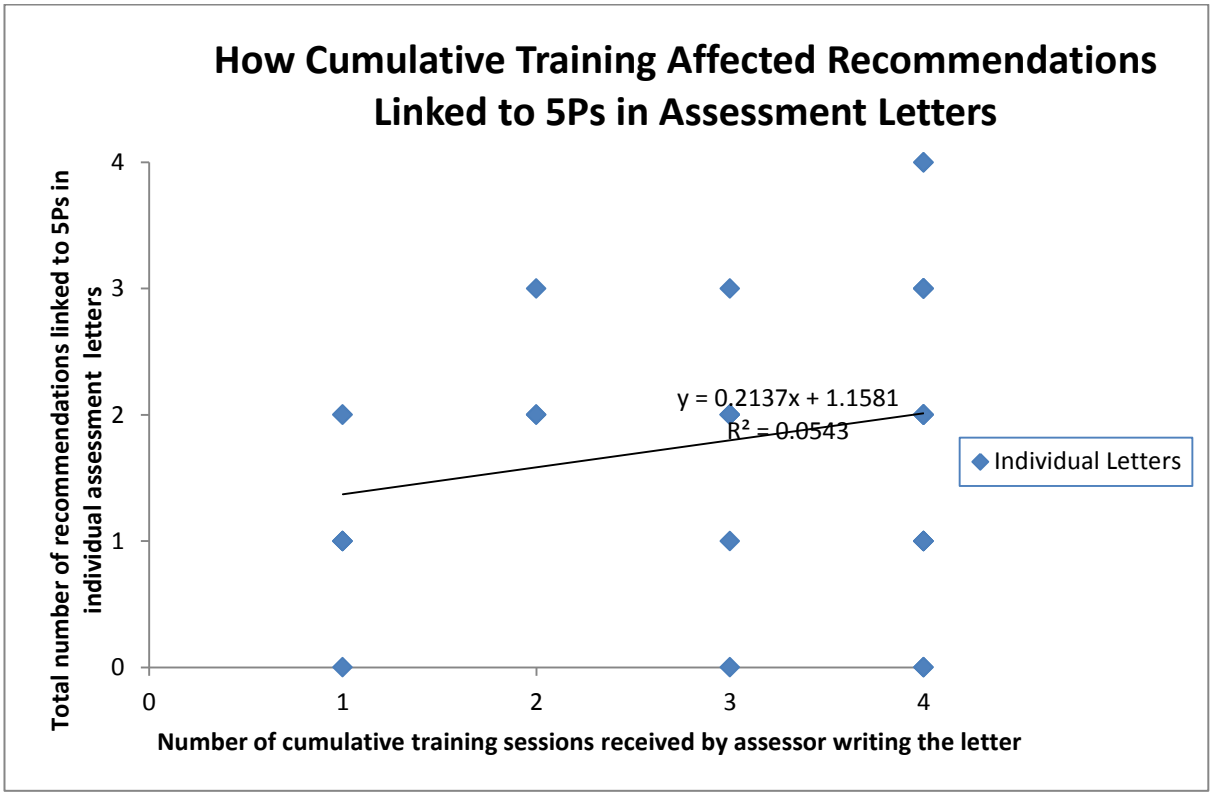
Objective 3: What are the effects of training received?

Training Received

Graphs 5 and 6 show the effects of cumulative staff training (i.e. some assessors received all four training opportunities, but other assessors received less than four) on the use of 5Ps in assessment letters and assessment letter recommendations. The trends that the graphs show will be discussed, but it should be noted that none of the correlation coefficients were significant and therefore the results should be interpreted with caution.



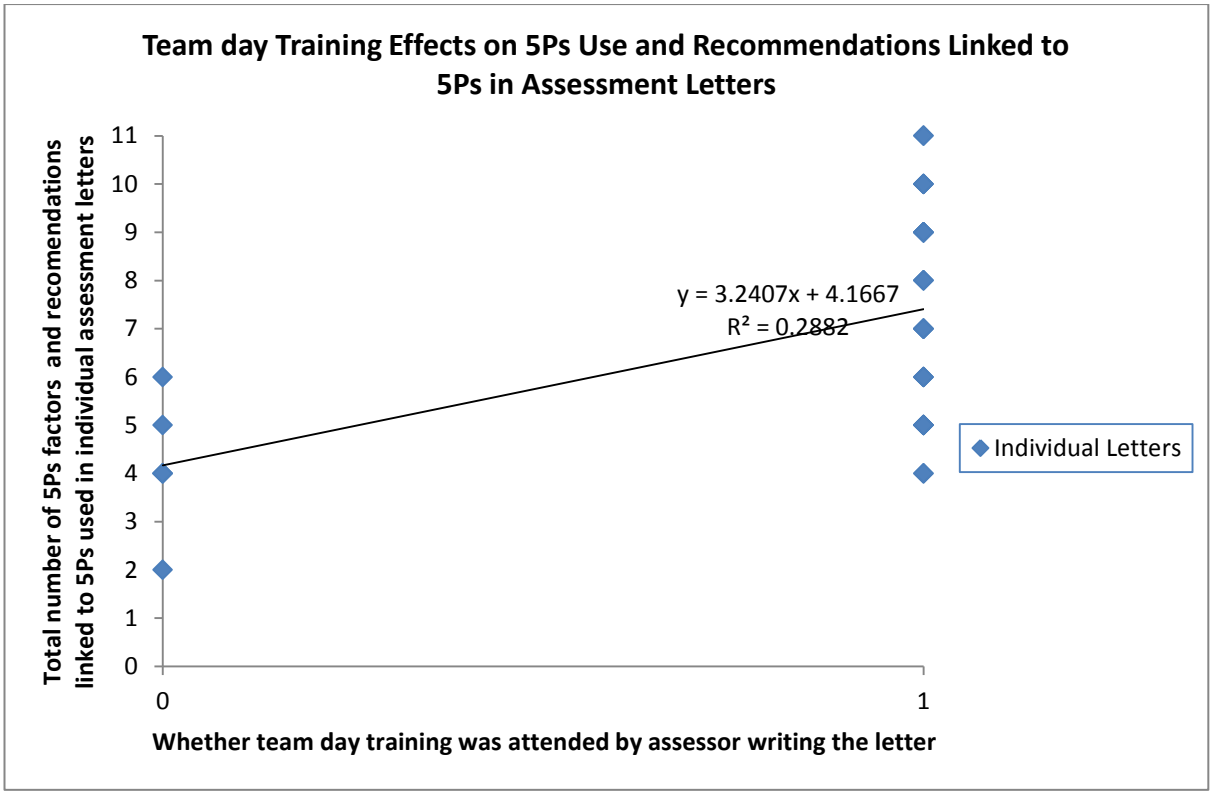
Graph 5: Effects of cumulative training on use of 5Ps in assessment letters



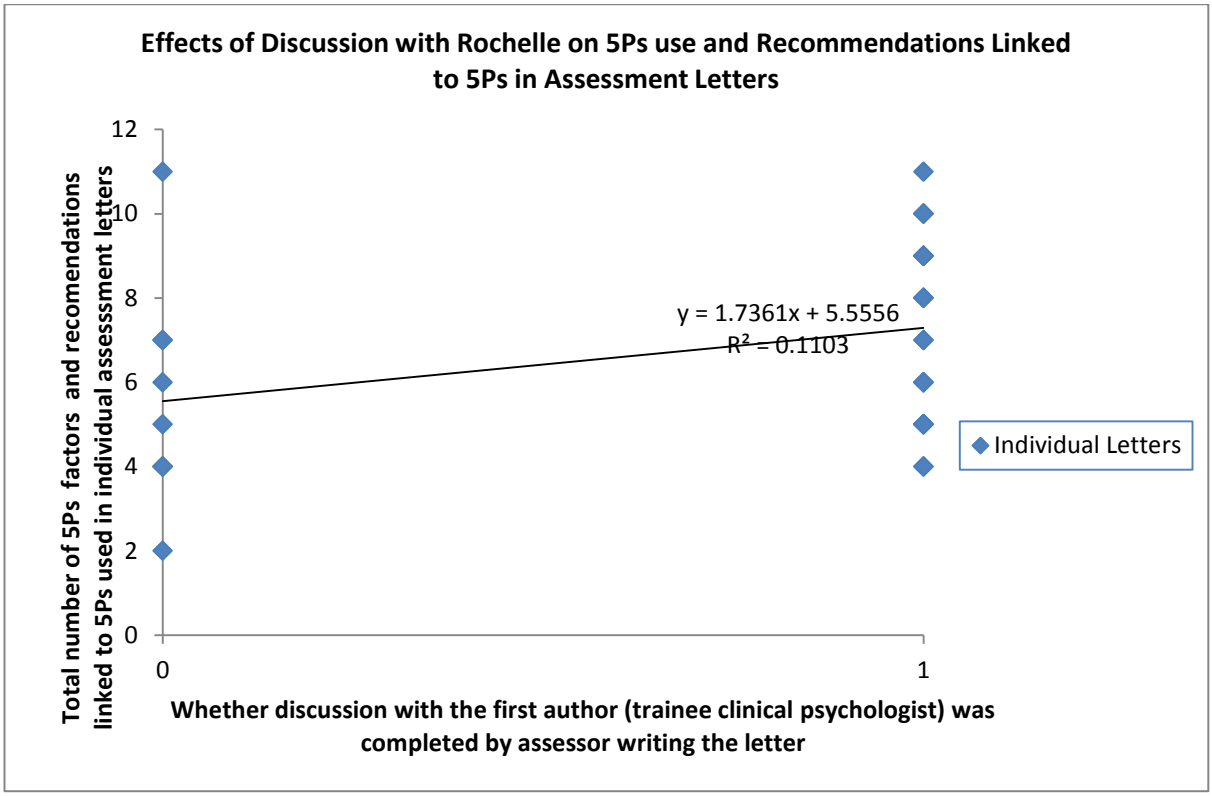
Graph 6: Effects of cumulative training on linking recommendations with 5Ps in assessment letters

Graph's 5 and 6 show that the more training the assessors had, the more likely they were to use the 5Ps in their assessment letters and to link the 5Ps to the recommendation's they make in their assessment letters. The graphs suggest that cumulative training was more effective at increasing the use of the 5Ps (Graph 5) than increasing the amount of recommendations being linked to the 5Ps (Graph 6).

Graphs 7 and 8 show the effects of attending the team training day or discussions with the first author on the use of the 5Ps in assessment letters and assessment letter recommendations.



Graph 7: Team day training effects on use of 5ps in letters and letter recommendations



Graph 8: Discussion with first author (trainee clinical psychologist) effects on use of 5ps in letters and letter recommendations

The team day seemed to have the strongest effect, which suggests that formal training may be more helpful than informal (e.g. discussions) training and that further team day training may be beneficial. However, it should be noted that because only one of the assessors did not attend the team day, this effect could be due to factors related to that individual assessor. Discussions with the first author had a positive effect on the use of the 5Ps, which may be explained by the first author's familiarity with the 5Ps and her availability to answer questions from the assessors. It was also noted during analysis that there was a positive effect of 'other training' on the use of 5Ps; a more detailed assessment of this showed that this was related to one of the assessors looking up the guidelines for use of the 5Ps on the trust intranet. However, this result might be confounded by other factors related to that particular assessor. Data on the differential effects of the training hand-outs cannot be ascertained as all the assessors received them. None of the other types of training showed any effect.

what this means for staff training.

As protective factors were stated the least, training in the importance of protective factors should be instigated to increase its use. Training on the different types of perpetuating factors and corresponding treatment recommendations may also increase recommendations linked to perpetuating factors. Staff training in linking recommendations with all identified 5Ps factors may increase recommendations linked to all of the 5Ps.

Objective 4: What strategies will improve the use of the 5Ps and recommendations made for patient mental health care?

Thematic Analysis of Questionnaire Feedback

Thematic analysis of the assessor's questionnaire responses found the below super-ordinate and sub-ordinate themes related to the use of the 5Ps (see Appendix G for themes and example quotes and Appendix F for all quotes).

Applicability
Meaningful applicability for assessment staff
Non-meaningful applicability to reader
Lack of Knowledge
Populating Assessment Letter Template
Seeking Simplicity

Identifying Recommendations
Extracting Assessment information
More Flexibility
Flexibility to use language appropriate to client
Flexibility of use

Table 1. Summary of Super-ordinate and Sub-ordinate themes

The superordinate theme 'applicability' refers to assessment staff's comments on how meaningful the 5Ps is when applied to assessment work; the subordinate themes of meaningful and non-meaningful applicability refer to some staff saying that the 5Ps is useful when making sense of assessment information and some staff saying the 5Ps structure makes no difference to the reader of the assessment letter. The superordinate theme 'lack of knowledge' refers to staff stating that they lack the knowledge to identify the 5Ps.

The superordinate theme 'populating assessment letter template' relates to staff comments on populating the assessment letter template using the 5Ps. The subordinate themes include; seeking simplicity, identifying recommendations and extracting assessment information, which relate to staff stating that the 5Ps template "makes it too complicated" and that it's difficult to identify recommendations and extract the 5Ps information as "the assessment process is not supportive".

The superordinate theme 'more flexibility' refers to staff stating that they would like to be able to use the 5Ps in a more flexible way; the linked subordinate themes refer to staff commenting that they would like to be able to use client-appropriate language and to choose whether or not to use the 5Ps format.

The sources and quotes data (see Appendix G for number of sources/quotes for each theme) shows that only two of the assessment staff stated that the application of the 5Ps structure was useful (i.e. when trying to make sense of assessment information), which limits the generalisability of this theme. The theme that was stated by the highest amount of assessment staff (4) relates to difficulties in populating the assessment letter and suggests that the assessment process needs to be updated to support the use of the 5Ps.

Questionnaire Feedback (Barriers and Improvements)

Assessors completed questionnaires that asked them to identify barriers and strategies for improvement in using the 5Ps in their assessment work. Example questions listed below;

- What have you found has been difficult about trying to include the 5Ps in the assessment letter?
- What would help you to use the 5Ps formulation in your assessment work?

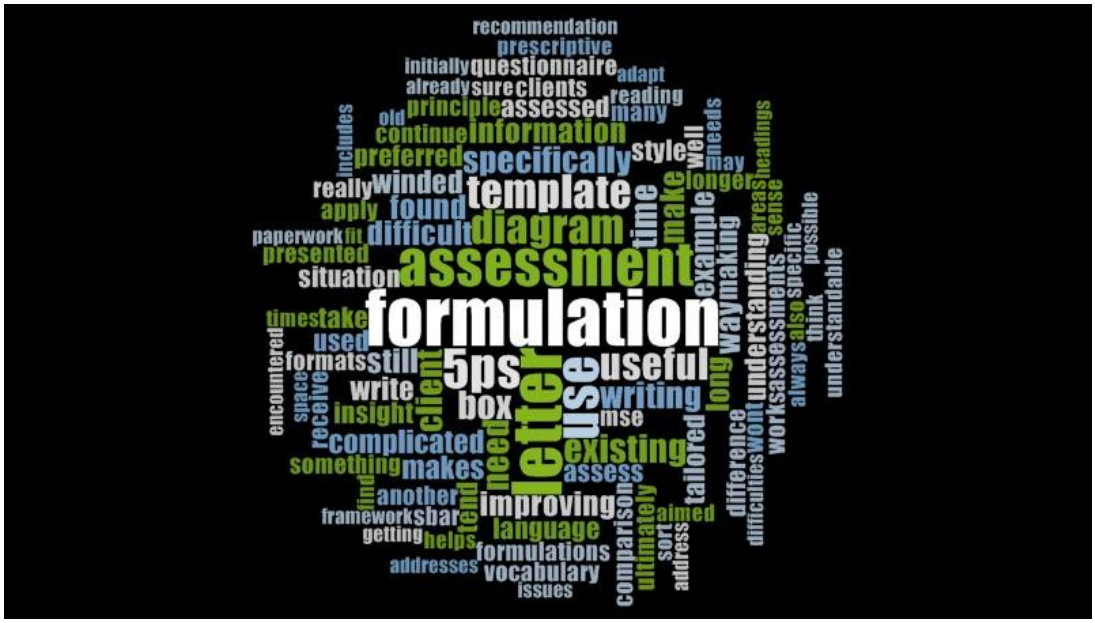
Barriers and strategies identified are listed in the table below (see appendix D for detail).

Barriers	Strategies for Improvement
Too complicated/inflexible/time consuming	Assessment form to complete during the assessment based on 5Ps
Assessment process hinders 5Ps	Examples of assessment letters written using 5Ps
Belief that it wouldn't change people's understanding of mental health problem	Training on; how recommendations can address all of the 5Ps, identifying perpetuating factors which can be targeted in treatment
Lack knowledge of perpetuating factors	Make assessment process simple
Cannot link recommendations to 5Ps	Flexibility in use of 5Ps in assessment letters

Table 2. Summary of Barriers and Strategies for Improvement

Figure 1. Shows the frequency of words used in the questionnaire answers the assessors gave. The high frequency of the words 'formulation' 'assessment' 'letter' and '5Ps' cannot be seen as indicative of 5Ps use as the questionnaire questions included these phrases. However, 'useful', 'complicated' and 'difficult' are also frequent which is in line with the thematic analysis and suggests there is room for improvement in implementing the use of the 5Ps.

Figure 1. Word Cloud Demonstrating Word Frequency within Questionnaire Answers (Raw data shown in appendix H)



Recommendations

Recommendations for improving the use of the 5Ps and associated recommendations in assessment letters and assessment meetings were made according to data collected.

Assessment Letter Recommendations

The below recommendations are suggested to improve the use of the 5Ps in assessment letters;

5Ps use in the assessment letters.

- The presenting MHP that is being treated should be stated at the start of the letter.
- Predisposing factors should link to the MHP.
- The client could be asked 'which experiences from your past do you think have affected your presenting MH difficulty?' and only answers to this question should be stated for predisposing factors (to reduce redundant information).
- The client can be asked 'what has made you ask for help now/made your MHP worse?' to identify precipitating factors if there are no discrete episodes of the MH problem.
- Perpetuating factors should link to recommendations made.
- Medication should be stated as a protective factor if recommended.

Summaries/Recommendation sections within assessment letters.

- The summary section should clearly state how each of the 5Ps factors affect the MHP.
- All recommendations should be clearly linked to the 5Ps factors affecting the MHP using simple language so the reader can understand the reasons for recommendations.
- If the recommendation is referral to a MH service, the aims for treatment within that service should be clearly stated.

Assessment meeting recommendations

The below recommendations are suggested to improve the use of the 5Ps in assessment meetings;

5Ps use in assessment meetings.

- Precipitating factors should be events which have happened just prior to the current MH episode (i.e. have made the MHP worse more recently).
- Protective factors can include factors other than factors linked to suicide risk.
- Perpetuating factors can include multiple factors (i.e. not just related to alcohol or drugs); the assessment meeting form should be updated to reflect this.

recommendations in assessment meetings.

- Recommendations should address all 5Ps factors which affect the MHP.

sharing assessment meeting notes.

- Assessment meeting 5Ps notes are a valuable resource which should be shared with assessment staff to ensure information is incorporated into the assessment letter.

Electronic notes, assessment forms/letter templates and training

The below recommendations are suggested to improve the overall process of using the 5Ps;

5Ps RIO.

- Assessment staff should be reminded to complete the formulation section on RIO using the 5Ps format.

assessment forms and letter templates.

- An assessment form based on the 5Ps should be developed and used when completing an assessment.
- An example 5Ps assessment letter should be shared.
- The assessment letter template should link to the 5Ps assessment forms.

- One heading called ‘formulation and clinical impression’ (to summarise the 5Ps which impact the MHP) should be used.
- The headings ‘what the service user wants’ and ‘situation’/‘why now’ may orientate the reader to the client’s goals and precipitating factors.

training.

The evidence collected on the cumulative effects of further training and staff feedback suggests that further staff training helps socialise staff to the 5Ps formulation model. Further training should therefore be run on the below;

- How recommendations can address all of the 5Ps
- How to identify perpetuating factors which can be targeted in treatment (e.g. negative thinking, poor motivation, attachment difficulties, lack of occupation etc.)
- How to identify relevant protective, predisposing and precipitating factors

NB: All training and forms developed should allow the 5Ps to be used in a client-centred flexible way, be as simple as possible and demonstrate that using the 5Ps is more efficient/can save time.

Presentation to the service

Service Reactions

The report was presented to representatives of the service (Head of Service Manager and Clinical Psychologist) on Thursday 21st May 2015. Reactions to the results regarding assessment letters, assessment meetings and effects of training included acknowledgement and agreement. The service representatives also hypothesised why the problem, perpetuating and protective factors were not stated as frequently;

- ‘Assessment staff have said that identifying the MHP is one of the most difficult parts’
- ‘Assessors are not always trained to assess psychological perpetuating factors’
- ‘Assessors are trained to link protective factors to risk management’

The service representatives also reflected on the training result, which suggested that having someone available to answer questions regarding the 5Ps increased its use. They explained that they had had assessment staff who were particularly good at helping other staff to learn the model, which had increased the use of the 5Ps over the last year and influenced the culture within the assessment team. The theme related to difficulties in

'extracting assessment information' and the associated recommendations in the report were in line with the updates that had already been made to the assessment process (i.e. a 5Ps format form is now used within the assessment; see forms used in appendix I). In relation to the 'seeking simplicity' theme, the service manager also stated that as staff have become more used to using the 5Ps they have stated that it is 'more efficient and can save time', suggesting that this is not as much of a barrier to its implementation as previously. Both service representatives reflected on the normal process of change.

Responses to the 'non-meaningful applicability to reader' theme included the service manager commenting on the positive feedback that had been received from G.P's (i.e. 'the new assessment letters are much easier to follow'). The service manager explained that assessment staff from the North and Central adult MH assessment services had been shadowing the use of the 5Ps model at Petherton as the plan is to roll out the use of the 5Ps assessment process to other MH teams. The service manager commented that the theme 'meaningful applicability for assessment staff', and the fact that staff had been able to use this format effectively, supports this plan. The service manager reflected that the assessment team have come a long way in their practice as 'they used to just write about mini mental state and the plan' in their assessment letters.

Discussion/Implications of the Study

Realistic Changes

Realistic changes to increase the use of the 5Ps and linked treatment recommendations were discussed and agreed. These changes included training (alongside staff in assessment meetings and formally for new staff), ensuring the whole assessment process continues to support the use of the 5Ps (using 5Ps assessment form and corresponding letter template, see appendix I) and assessors taking the 5Ps models, which are completed with the client, into the assessment meetings and having a copy of assessment meeting notes.

Planned Actions

The below planned actions were discussed and agreed with the service based on the report;

- To continue to use the updated 5Ps assessment process i.e. using the 5Ps assessment form and corresponding 5Ps letter template which includes an 'initial impression' 5Ps summary heading (see appendix I).

- Due to the high turnover of assessment staff, on-going training in the use of the 5Ps will occur and the service will consider hiring assessment staff who are interested to use the 5Ps method, to encourage a change in culture.
- Assessment staff will be encouraged to train and support each other in the use of the 5Ps.
- To train the whole assessment team (at team days or during assessment meetings) in what constitutes perpetuating and protective factors and how to link 5Ps factors with recommendations for MH care (i.e. discussions about the types of therapy that target certain 5Ps factors).
- To allow the MDT to explore/reflect on the factors within each of the 5P's during assessment meetings.
- To support the assessment staff in identifying the presenting MHP in assessment meetings.
- Assessors will take the 5Ps models that are completed with the client into assessment meetings to improve MDT communication and ensure that recommendations agreed are linked to 5Ps.
- The 5Ps assessment process will be rolled out in central and North Bristol MH teams; assessment staff from these teams have already observed the Petherton process and will receive on-going support and supervision to implement the 5Ps in their assessment process using the same processes and documents.
- The report will be sent to the commissioner in support of these changes to improve the adult MH assessment services across Bristol.

Likelihood of Change

It was acknowledged that the culture of the team had changed since the 5Ps were initiated and that there had been an acceptance and reinforcement of the use of the 5Ps model in the assessment process. The service manager also agreed to share this report with the assessment staff to continue the cultural shift. The service is now completing three assessments per day using the 'opening assessment' 5Ps model format; they are the only

adult MH service in Bristol that have no waiting list. The national average waiting time for an adult MH assessment in the UK is currently 4 weeks.

The management team completed an audit of referrals following the implementation of the 5Ps which showed that there had been a significantly lower number of re-referrals since the implementation of the 5Ps model. Hypotheses for this included the assessment process being more collaborative, service users feeling that they have received an intervention in itself (i.e. the 5Ps helps service users to understand MHP maintenance factors), and service users feeling more confident in the recommendations made. The service manager commented that service users might also feel more empowered 'because they tend to arrive at their assessment appointment with a list of things for each of the 5Ps already completed'. The service manager also reported that service users have stated that the appointment letter and information they receive prior to the assessment has 'reduced their fear of sectioning'. The results of this project have validated the use of the 5Ps format and consequently it is in the process of being rolled out to other adult MH services in Bristol.

Bias

Because of the small sample size these results cannot be generalised to the general population. However within this service context the results are valid as the response rate was high (only one assessor chose not to take part) and methods to reduce researcher bias were employed. Thematic analysis results were crosschecked and agreed to ensure inter-rater reliability and validity.

Further Work

Repeating this analysis would enable a further assessment of the effects of the 5Ps on service improvement; especially following the implementation of the recommended changes. Using the same process to collect data pre and post implementation of the 5Ps in the north and central MH assessment teams in Bristol would also allow the effects of the 5Ps to be further investigated.

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Lay summary of the research

This service improvement project is about integrating the use of the 5Ps formulation tool into the mental health assessment process which occurs in a community mental health team. The 5Ps formulation is a way of bringing together all the information gathered in a mental health assessment so that it makes more sense. The 5Ps formulation tool includes 5 areas for assessors to consider;

- Problem (the mental health problem the person is presenting with e.g. depression)
- Predisposing (the factors from someone's history that may have put them at risk of developing the mental health problem e.g. a trauma)
- Precipitating (the factors which triggered this episode of the mental health problem e.g. losing their job)
- Perpetuating (the factors which keep the mental health problem going e.g. rumination and avoidance)
- Protective (the factors which can improve the mental health problem e.g. a supportive family)

It is hoped that if the 5Ps formulation is used then the factors which maintain the mental health problem will be clearer and therefore recommendations for patient care will be improved.

Mental health assessment staff were asked to use the 5Ps in their assessment work and this research was conducted after assessment staff began using the 5Ps to identify three things;

1) Whether staff were using the 5Ps to summarise and communicate all the factors which influence the patient's mental health problem (i.e. predisposing, precipitating, perpetuating and protective factors) in assessment meetings and assessment letters.
2) To assess if the recommendations made in assessment meetings and letters addressed the factors that influence the patient's mental health problem (i.e. predisposing, precipitating, perpetuating and protective).
3) To recommend strategies to improve the use of the 5Ps and the recommendations made for patient mental health care based on the findings from 1 & 2 and feedback from the assessors.

The results showed that assessment staff are using the 5Ps in their assessment work and that some recommendations were linked to the 5Ps. It also showed that some assessment staff find the 5Ps format helpful in their assessment work. However, it also showed that there are areas for improvement which included;

- Adjustments to team discussions in assessment meetings and changing the way that the assessment letters are written to ensure that all of the 5Ps factors are linked clearly and succinctly to the mental health problem and recommendations made.
- A reminder to assessment staff that the formulation section on the electronic notes system should be completed using the 5Ps format to improve team communication.
- Assessment forms and letter templates which are in line with the 5Ps should be used.
- Further training for assessment staff in how to identify the 5Ps and how recommendations can address each of the 5Ps should be completed.
- Assessment meeting notes should be shared with the assessment staff to ensure that they are incorporated in to the assessment letter.

A discussion with the management team following this research showed that many of these areas for improvement had been, or were in the process of, being addressed. The discussion also enabled further actions to be agreed and the research outcomes supported the plan to integrate the 5Ps into other mental health teams across Bristol.

Main Research Project

Title: Does Paediatric Maladaptive Perfectionism Mediate the Association between Parenting Factors and Paediatric Anxiety in Adolescents?

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Literature Review

Perfectionism is defined as "setting an almost unattainable high standard, valuing only successes and the attainment of all goals set" (Flett, Coulter, Hewitt, & Nepon, 2011). The impact of perfectionism on adult mental health has been widely studied and perfectionism is now considered a trans-diagnostic risk and maintenance factor across a range of disorders, including eating disorders, anxiety and depression (Egan, Wade, & Shafran, 2011). Evidence from prospective studies have also shown that the existence of perfectionism can predict poor treatment outcomes (Blatt, Zuroff, Bondi, Sanislow, & Pilkonis, 1998). However, less is known about the impact of perfectionism on childhood or adolescent psychopathology, including factors that may be associated with the development of perfectionism and ultimately, its impact on paediatric psychopathology, including anxiety. Given the potential trans-diagnostic nature of perfectionism and evidence that it may act as a barrier to successful treatment outcomes, it is important to continue to investigate reasons for the development and maintenance of paediatric perfectionism, and its potential impact on other paediatric psychopathology.

It has been proposed that perfectionism has both self-focused and other-focused components and can therefore be broken down into two components; (i) self-oriented perfectionism (SOP), where an individual imposes requirements on themselves to be perfect and (ii) socially prescribed perfectionism (SPP), where an individual perceives that others require them to be perfect, which can cause further distress (Hewitt & Flett, 1991a). Socially prescribed paediatric perfectionism may include perceived parental expectations of perfect standards or perceived perfectionistic meaning within parental criticism (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991a). Further research has shown that the self-orientated dimension can be broken down into self-oriented perfectionism striving (SOP-S; adaptive perfectionism where an individual strives to achieve high standards but is not self-critical when they do not achieve these standards) and self-oriented perfectionism critical (SOP-C; maladaptive perfectionism where an individual strives to achieve high standards and is very critical of themselves when they do not achieve these standards) (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; O'Connor, Dixon, & Rasmussen, 2009; Rice & Slaney, 2002).

The risk factors for the development of maladaptive perfectionism in children and adolescents and its impact on paediatric psychopathology are currently unclear. A review by Morris & Lomax (2014) summarised the small amount of correlational literature available, which suggested that parent perfectionism and parenting style may be key predictors of the development of maladaptive paediatric perfectionism. Parental factors such as parent perfectionism, parent anxiety and authoritarian/critical parenting style have been shown to be associated with paediatric perfectionism (Affrunti & Woodruff-Borden, 2014). The social expectations model (Flett, Hewitt, Oliver, & Macdonald, 2002) suggests that perfectionistic parents may become controlling of their children in their striving to achieve high standards. It is hypothesised that these behaviours are internalised by the child, who comes to believe that they 'must be perfect' to receive parental affection and that 'failure is not acceptable', which may result in anxiety. This theory links with the notion that socially prescribed perfectionism may include parental expectations or criticisms content. This theory has preliminary support from correlational studies with college students (Enns et al., 2002; Turner & Turner, 2011) as well as children (Kenney-Benson & Pomerantz, 2005) and adolescents (Soenens et al., 2008). Experimental manipulations of perfectionistic and controlling parenting behaviours also showed detrimental effects of parental control on paediatric perfectionism (Flett et al., 1995; Kenney-Benson & Pomerantz, 2005; Mitchell et al., 2013; Kenney-Benson & Pomerantz, 2005; Mitchell et al., 2013).

Recent reviews have also suggested possible pathways linking the development of paediatric perfectionism with paediatric psychopathology (Affrunti & Woodruff-Borden, 2014; Morris & Lomax, 2014). Correlational studies using mainly community based samples suggest that self-oriented critical perfectionism and socially prescribed perfectionism is associated with higher anxiety and depression symptoms in children and adolescents (Bieling, Israeli, & Antony, 2004; Essau et al., 2008; Flett & Hewitt, 2002; Stornelli et al., 2009). These associations have largely been explored in community samples with little focus on the pathway from perfectionism to anxiety in adolescents who are diagnosed with an anxiety disorder. Moreover, the paediatric perfectionism and anxiety literature to date is largely focused on children, there has been little focus on these pathways in adolescents.

It is well established that parental psychopathology, including parenting style, can also impact on paediatric psychopathology, particularly paediatric anxiety (Essau et al., 2008; Hewitt et al., 2002; Murray, Creswell, & Cooper, 2009; Murray et al., 2012; Roohafza et al., 2010; Stornelli, Flett, & Hewitt, 2009; Suveg, Jacob, & Thomassin, 2009, Rapee, 2002; Bogels & Brechman-Toussaint, 2006; Cohn, Cowan, Cowan, & Pearson, 1992; Crowell & Feldman, 1991). Maternal anxiety is associated with child anxiety (Ginsburg, Grover, & Ialongo, 2004) and research using the anxiety-provoking speech preparation paradigm has shown an association between over-involved maternal parenting behaviours and children with OCD (Barrett, Shortt, & Healy, 2002; Bayliss, 2011) and Body Dysmorphic Disorder (Gregg, Krebs, & Mataix-Cols, 2014). Another study which included a speech task (Gar & Hudson, 2008) also showed that anxious parents were more intrusive, expressed more anxiety and had a poorer quality interaction with their child than non-anxious parents (Creswell et al., 2012; Moore et al., 2004). However, again the literature in this area largely focusses on children, with little empirical evidence for whether these processes are also relevant to adolescents.

There is ample evidence demonstrating the effectiveness of cognitive behaviour therapy (CBT) for children and adolescents, 50-60% of children will lose their primary anxiety diagnosis following a course of CBT. However, this means a significant proportion of children and adolescents fail to lose their primary diagnosis following CBT (Bodden et al, 2008). Consequently, there is a need to continue to investigate potential predictors and mediators for paediatric anxiety, which may require targeting during treatment. Whilst high parental anxiety has been identified as a barrier to CBT treatment success (Kendall, Brady, & Verduin, 2001; Kendall, Safford, Flannery-Schroeder, & Webb, 2004; Weisz, Weiss, Han, Granger, & Morton, 1995), paediatric anxiety treatments which involve parenting interventions have failed to show an improvement in child/adolescent anxiety above standard CBT (Khanna & Kendall, 2009). One reason for this may be that the parenting intervention is not appropriately targeting the parent mechanism which is impeding paediatric anxiety outcomes. Consequently, there is a particular need to further explore the role of parenting and parent psychopathology in maintaining paediatric anxiety, so that they can be effectively targeted in treatment (Affrunti & Woodruff-Borden, 2014). Parental perfectionism is another parental factor which has been shown to explain test anxiety in female children (Besharat, 2003) and parental perfectionism and over-control have been shown to mediate the association between parental anxiety and child anxiety in

the only mediator analysis to date (Affrunti & Woodruff-Borden, 2014). Parental over-control was also shown to mediate the association between parental perfectionism and child anxiety (Affrunti & Woodruff-Borden, 2014) in children aged 3-12 years.

Child Maladaptive Perfectionism as a Possible Mediator between Parenting Factors and Paediatric Anxiety

Part of the model developed from the literature review by Morris and Lomax (2014, see Figure 1) suggests that parenting factors and paediatric maladaptive perfectionism are key factors in the development of paediatric mental health problems. There is preliminary evidence suggesting that elevated paediatric maladaptive perfectionism is associated with elevated paediatric anxiety. However, it is unclear which factors may influence the development of paediatric maladaptive perfectionism. Another possible parental mechanism which may explain the development of paediatric anxiety, and which has received less attention than parental anxiety, is the parent's own perfectionism, and its effects on the development of paediatric maladaptive perfectionism. Understanding whether parent perfectionism and parenting style impacts on the development of adolescent maladaptive perfectionism, and how this impacts on the adolescent's anxiety, remains an important clinical issue, which is yet to be investigated. This research addresses this gap in the literature by exploring the role of parenting factors and maladaptive perfectionism in association with adolescent anxiety. Due to the limited correlational research between parental factors and anxiety in adolescent's it should be noted that this mediator analysis is exploratory. Especially as extrapolations of the associations between parental factors and adolescent anxiety are being made from data collected from younger children.

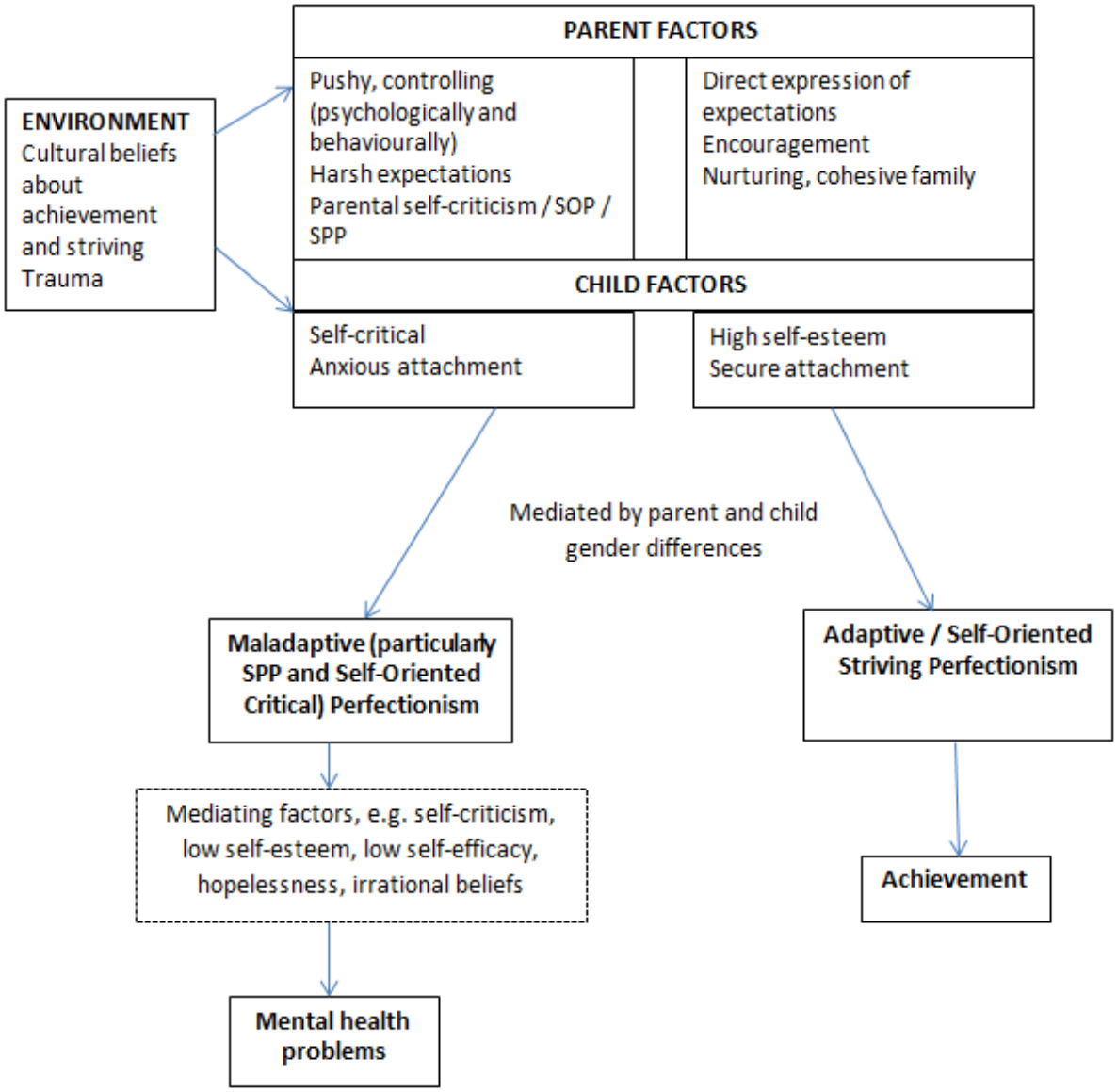

Figure 1. A tentative model of the development of childhood perfectionism and MH problems (Morris and Lomax, 2014)

Aims and Objectives

The primary aim of this research is to explore the theory that the association between parenting factors (parenting style and parental anxiety, parental maladaptive perfectionism) and paediatric anxiety is mediated by paediatric maladaptive perfectionism, with a specific focus on adolescence.

In order to answer this research question the following hypotheses were developed and tested:

Primary Hypothesis

1) It is hypothesised that parental psychopathology (maladaptive perfectionism and anxiety) and negative parenting style (i.e. critical and authoritarian) will be associated with higher symptoms of adolescent anxiety, and that this association will be partially mediated by the adolescent's own maladaptive perfectionism (i.e. SPP and SOP-C)

More Specific Secondary Hypotheses

2) The association between parental maladaptive perfectionism (including high expectations of child, SPP and SOP-C) and paediatric anxiety will be partially mediated by maladaptive paediatric perfectionism
3) The association between critical parenting style and paediatric anxiety will be partially mediated by maladaptive paediatric perfectionism
4) The association between parental anxiety and paediatric anxiety will be partially mediated by maladaptive paediatric perfectionism
5) The association between authoritarian parenting style and paediatric anxiety will be partially mediated by maladaptive paediatric perfectionism

Method

Participants

Participants were 66 parent-adolescent dyads recruited from seven sites located in urban areas in the west of the U.K. Adolescents were aged between 12 and 17 years old (M = 14.5, SD = 1.66) and the majority were females (54.5%). Most of the parents were mothers (80.3%), with the remainder being the father of the adolescent. One site was a local high school and other sites were local child and adolescent mental health services (CAMHS). Adolescents recruited through CAMHS all had a primary diagnosis of an anxiety disorder (e.g. generalised anxiety, social anxiety, OCD), as confirmed by their clinician following a mental health assessment. Adolescents with comorbid Axis I mood disorders (e.g. depression) were included, as this is a common comorbidity. To be included in the study the adolescent had to still be in the formulation/conceptualisation stage of treatment for their anxiety. Adolescents also had to have a primary care-giver who was willing to take part and had an appropriate level of English language ability. Adolescents with a learning disability, autism spectrum disorder, attachment disorder diagnosis, psychosis or bipolar

disorder were excluded. From the school sample, any adolescent aged 12-17 years of age, and their primary care-giver were invited to participate.

Of the 66 parents, self-report showed 3% reported mild anxiety symptoms, 4.5% reported moderate anxiety symptoms, 3% reported severe anxiety symptoms and 6% reported very severe anxiety symptoms based on a standardised self-report measure (Lovibond & Lovibond, 1995). Of the 66 adolescents 27% reported clinical level symptoms of anxiety and 94% of those suffering from clinical level symptoms of anxiety also reported clinical level symptoms of depression based on a standardised self-report measure (Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000). Sixteen of the adolescents who reported clinical level symptoms of anxiety were from the CAMHS sample, two were from the community sample. Table 1 shows sample demographics.

Table 1. Demographic variables for parents and adolescents.

	Parent (n=66)	**Adolescent (n=66)**
Age	n/a	M = 14.5 SD = 1.659
Gender	Female 80.3%	Female 54.5%
Anxiety Disorder (mild-very severe anxiety symptoms on DASS-42 or T-score of 70+ on RCADS total anxiety scale)	16.5%	27%
Comorbid mood disorder (T-score of 70+ on RCADS depression scale)	n/a	94%
Number from school sample	50	50
Number from clinical sample	16	16
Antidepressant medication in	n/a	25%

clinical sample

Procedure

Ethical approval was obtained from the Greater Manchester West Ethics committee (see appendix K) as well as the University of Bath and NHS R&D. CAMHS clinicians invited eligible participants to take part using a screening form (see appendix L) and invitation letter (see appendix M). The community sample were invited to take part via a monthly e-newsletter and invitation letters. For the CAMHS sample a brief background interview was completed over the phone. All parent-adolescent dyads read further information and completed consent forms (see appendix N) and questionnaires (see appendix O) online using an anonymous ID number. Paper versions were available where required and thankyou vouchers were given.

Sample size and power.

A power calculation using the 'G-power' programme and data from a previous study (Enns, Cox & Clara, 2002) which found evidence that maladaptive perfectionism mediated the relationship between harsh parenting and depression proneness suggested that a sample size of 42 would have 80% power to detect a difference (calculated from effect size of 0.20) when using Linear Multiple Regression with a 0.05 significance level with two predictors (i.e. paediatric maladaptive perfectionism and parenting factor).

Measures

Child measures.

Revised Children's Anxiety and Depression Scale (RCADS) (Chorpita et al., 2000).

Adolescent anxiety was assessed using the RCADS which is a 47 item self-report scale measuring anxiety and depression in children and adolescents aged 6-18 years old (Chorpita et al, 2000). For the purpose of this study the total score on the anxiety subscale was used. Participants are asked to rate how often they experience each symptom item on a 4-point Likert-scale from 0 ("never") to 3 ("always") with higher scores indicating higher levels of anxiety. The RCADS has been shown to have high validity and reliability in children and adolescents (Chorpita et al., 2000). The strong internal consistency of this measure was confirmed in the current study for the anxiety subscale ($\alpha = .970$) and

depression subscale (α = .913). Descriptive information on clinical levels of anxiety symptoms is based on the T-score cut-off of 70 (Chorpita et al, 2000).

Child and Adolescent Perfectionism Scale (CAPS) (Flett & Hewitt, 1990; O'Connor et al., 2009).

Adolescent perfectionism was assessed using the CAPS which is a 22 item self-report scale measuring child and adolescent perfectionism in children aged 7-18 years. The scale measures 2 factors; SOP (self-oriented perfectionism including critical and striving types) and SPP (socially prescribed perfectionism). SOP-S (adaptive perfectionism) and SPP+SOP-C (maladaptive perfectionism) can be calculated from this measure. Participants are asked to rate how true each statement is of them on a 5-point Likert-scale from 1 (*false, not at all true of me*) to 5 *(very true of me)*. The CAPS has been shown to have high validity and reliability in children and adolescents (O'Connor et al., 2009). The strong internal consistency of this measure was confirmed in the current study (α = .888).

Critical Parenting Inventory (CPI) (Randolph & Dykman, 1996).

Critical parenting style was assessed using the CPI which is a 25 item self-report measure which asks the adolescent to report the frequency of critical or non-critical statements made by their parent. Participants are asked to rate the degree to which their main caregiver said each of the statements to them when they were growing up on a 6 point Likert-scale from 1 (*never)* to 6 (*always)*. Higher scores indicate higher levels of critical statements used by parents during child rearing. The strong internal consistency of this measure was confirmed in the current study (α = .921).

Parent measures.

Multidimensional Perfectionism Scale (MDS) (Hewitt, Flett, Turnbull-Donovan, & Mikali, 1991).

Parental perfectionism was assessed using the MDS which is a 45 item self-report scale measuring adult perfectionism. The scale measures 3 factors; SOP (self-oriented perfectionism including critical and striving types), SPP (socially prescribed perfectionism) and OOP (other oriented perfectionism i.e. parental expectation of adolescent). SOP-S (adaptive perfectionism), and SPP+SOP-C+OOP (maladaptive perfectionism) can be

calculated from this measure. The CAPS scale was developed from this scale. Participants are asked to rate to what extent they agree or disagree on a number of statements using a 7-point Likert-scale from 1 (*disagree*) to 7 *(agree)*. Higher scores indicate higher levels of perfectionism; it is not a diagnostic instrument so there is no clinical cut off. The MDS has been shown to have reliability and adequate concurrent validity in psychiatric patient samples (Hewitt et al., 1991). The strong internal consistency of this measure was confirmed in the current study (α = .934).

Depression Anxiety Stress Scales (DASS-42) (Lovibond & Lovibond, 1995).

Parental anxiety was assessed using the DASS-42 which is a 42 item self-report questionnaire measuring parental anxiety, depression and stress. Participants are asked to rate to what extent each statement applied to them over the last week on a 4-point Likert-scale from 0 (*did not apply to me at all*) to 3 (*applied to me very much or most of the time)*. Scores range from 0 to 42 where higher scores indicate higher levels of depression/anxiety/stress. Scores can also be categorised according to normal, mild, moderate, severe and very severe symptoms. For the purpose of the current research the total score on the DASS-anxiety subscale was used as a measure of parental anxiety symptoms. The DASS has well established reliability and validity, including for its subscales (Clara, Cox, & Enns, 2001). The strong internal consistency of this measure was confirmed in the current study for the anxiety subscale (α = .914).

Parental Authority Questionnaire - Revised (PAQ-R) (Reitman, Rhode, Hupp, & Altobello, 2002).

Parenting style was assessed using the PAQ-R. The PAQ-R is a 30 item self-report questionnaire measuring parenting style. The scale measures three parenting styles; Authoritarian (parent is high in control and maturity demands and low in responsiveness and communication), Authoritative/flexible (parent is high in control, responsiveness, communication and maturity demands) and Permissive (Parent is low in control and maturity demands and high in communication and responsiveness). Participants are asked to rate the degree to which they agree with a series of statements related to their beliefs about parenting their child on a 5 point Likert-scale from *strongly agree* to *strongly disagree*. Subscale Scores range from 10 to 50 where higher scores indicate higher levels

of parenting style. The PAQ-R has been shown to have reliability and validity within an acceptable range in a large ethnically and socioeconomically diverse sample (Reitman et al., 2002). The strong internal consistency of this measure was confirmed in the current study for the authoritarian subscale (α = .854).

Statistical Analyses

Data were analysed using an INDIRECT SPSS macro statistical package that calculated total, direct and indirect effects between each variable (Preacher & Hayes, 2008). Statistical mediation analyses using linear regression modelling (to test significance of direct effects) and bootstrapping procedure with bias-corrected confidence estimates (to test the significance of indirect effects) enabled hypotheses to be tested. Bootstrapping analysis does not require a large sample size and does not assume a normal distribution (Preacher & Hayes, 2008). Therefore bootstrapping is considered a superior technique for evaluating mediation in smaller samples. The bias-corrected 95% confidence intervals of the indirect effects were obtained using 5000 bootstrap re-samples (Preacher & Hayes, 2008). Indirect effects were considered significant when zero was not within the 95% confidence interval (e.g. 000 to 000, see table 3). Point biserial correlations for strength of associations between specific variables were also calculated.

Results

Descriptive Statistics

Table 2 shows descriptive statistics for the sample (see appendix P). Child age and child gender were not associated with paediatric anxiety and were therefore not added as covariates in subsequent analyses. Histograms showed that all variables had good variance (see appendix Q). Pearson correlation coefficients between variables were calculated for the sample (see appendix R) and are presented in table 2. Parental factors of anxiety, maladaptive perfectionism, authoritarian and critical parenting style were not significantly correlated with adolescent anxiety ($r(64) = .07$, $p = .60$, $r(64) = -.21$, $p = .10$, $r(64) = .08$ $p = .53$, $r(64) = .17$, $p = .16$, respectively). Parental factors (anxiety, maladaptive perfectionism, authoritarian and critical parenting style) were not significantly correlated with adolescent maladaptive perfectionism ($r(64) = .05$, $p = .69$, $r(64) = -.05$, $p = .68$, $r(64) = -.21$, $p = .08$, $r(64) = .21$, $p = .09$, respectively). Adolescent maladaptive perfectionism was significantly and positively correlated with adolescent anxiety ($r(64) = .50$, $p < .001$).

Table 2. Descriptive Statistics and Pearson Correlation Coefficients for Study Variables

	DASS-42	MDS	PAQ	CPI	RCADS	CAPS
Parental Anxiety (DASS-42)	_					
Parental Maladaptive Perfectionism (MDS)	0.30*	_				
Authoritarian Parenting (PAQ)	0.16	0.22	_			
Critical Parenting (CPI)	0.02	0.22	-0.02	_		
Child Anxiety (RCADS)	0.07	-0.21	0.08	0.17	_	
Child Maladaptive Perfectionism (CAPS)	0.05	-0.05	-0.21	0.21	0.50**	_
Mean	3.77	117.70	25.94	61.71	35.86	39.52
SD	6.50	31.83	6.48	17.68	24.19	10.92
Range	28	159	37	103	84	46
Confidence Interval (95%)	2.17-5.37	109.87-125.52	24.35-27.53	57.37-66.06	29.92-41.81	36.83-42.20

*p<0.05 **p<0.01 [1]

Mediator Analysis

[1] Multicollinearity was not a concern, the highest correlation was between parental perfectionism and parental anxiety ($r(64) = .30^*$, $p = .01$)

Table 3 shows the results of bootstrapping mediator analysis for each independent variable/parental factor (see appendix S).

Mediator model 1 (IV = parental anxiety). There was no evidence of a significant association between parental anxiety and adolescent anxiety (c path; B = .25, $t(64) = .53$, $p = .60$). Parental anxiety was also not significantly associated with the mediator, paediatric maladaptive perfectionism (a path; B = .08, $t(64) = .40$, $p = .69$). The mediator, paediatric maladaptive perfectionism was significantly associated with paediatric anxiety (b path; B = 1.09, $t(64) = 4.50$, $p < .001$). Unsurprisingly, given parental anxiety was not significantly associated with the mediator (adolescent perfectionism) or the outcome variable (adolescent anxiety), there was no evidence that adolescent perfectionism directly or indirectly mediated an association between parental anxiety and adolescent anxiety (B = .09; CI = -.30 - .66).

Mediator model 2 (IV = parental maladaptive perfectionism). There was no evidence of a significant association between parental maladaptive perfectionism and adolescent anxiety (c path; B = -.16, $t(64) = -1.80$, $p = .10$). Parental maladaptive perfectionism was also not significantly associated with the mediator, paediatric maladaptive perfectionism (a path; B = -.02, $t(64) = -.42$, $p = .68$). The mediator, paediatric maladaptive perfectionism was significantly associated with paediatric anxiety (b path; B = 1.08, $t(64) = 4.53$, $p < .001$). Unsurprisingly, given parental maladaptive perfectionism was not significantly associated with the mediator (adolescent perfectionism) or the outcome variable (adolescent anxiety), there was no evidence that adolescent perfectionism directly or indirectly mediated an association between parental maladaptive perfectionism and adolescent anxiety (B = -.02; CI = -.10 - .07).

Mediator model 3 (IV = authoritarian parenting). There was no evidence of a significant association between authoritarian parenting and adolescent anxiety (c path; B = .29, $t(64) = .63$, $p = .53$). Authoritarian parenting was also not significantly associated with the mediator, paediatric maladaptive perfectionism (a path; B = -.36, $t(64) = -1.76$, $p = .08$). The mediator, paediatric maladaptive perfectionism was significantly associated with paediatric anxiety (b path; B = 1.18, $t(64) = 4.90$, $p < .001$). Unsurprisingly, given authoritarian parenting was not significantly associated with the mediator (adolescent perfectionism) or the outcome variable (adolescent anxiety), there was no evidence that

adolescent perfectionism directly or indirectly mediated an association between authoritarian parenting and adolescent anxiety (B = -.43; CI = -1.07 - -.04).

Mediator model 4 (IV = critical parenting). There was no evidence of a significant association between critical parenting and adolescent anxiety (c path; B = .24, $t(64) = 1.42$, $p = .16$). Critical parenting was also not significantly associated with the mediator, paediatric maladaptive perfectionism (a path; B = .13, $t(64) = 1.72$, $p = .09$). The mediator, paediatric maladaptive perfectionism was significantly associated with paediatric anxiety (b path; B = 1.6, $t(64) = 4.30$, $p < .001$). Unsurprisingly, given critical parenting was not significantly associated with the mediator (adolescent perfectionism) or the outcome variable (adolescent anxiety), there was no evidence that adolescent perfectionism directly or indirectly mediated an association between critical parenting and adolescent anxiety (B = .14; CI = -.03 - .38).

This means that child maladaptive perfectionism did not mediate the association between parent factors (anxiety, maladaptive perfectionism, authoritarian and critical parenting) and paediatric anxiety. Figure 2 represents the mediator model including the results of the mediator analysis.

Table 3. Results of Bootstrapping Mediator Analysis on Direct Effect of Parental Factors (anxiety, maladaptive perfectionism, authoritarian and critical parenting style) on Adolescent Anxiety and Indirect Effect of Parental Factors on Adolescent Anxiety through Adolescent Maladaptive Perfectionism

	B coefficient	***t***	***p***	**Bootstrap 95% CI [Lower CI, Upper CI]**
Adolescent Maladaptive Perfectionism (Mediator)				
a path				
IV 1. Parental Anxiety – mediator	0.08	0.40	0.69	
IV 2. Parental maladaptive perfectionism – mediator	-0.02	-0.42	0.68	

IV 3. Authoritarian parenting style – mediator	-0.36	-1.75	0.08	
IV 4. Critical parenting style - mediator	0.13	1.72	0.09	
b path				
IV 1. Mediator – DV paediatric anxiety	1.09	4.50	0.00	
IV 2. Mediator – DV paediatric anxiety	1.08	4.53	0.00	
IV 3. Mediator – DV paediatric anxiety	1.18	4.90	0.00	
IV 4. Mediator – DV paediatric anxiety	1.06	4.30	0.00	
c' path				
Direct effect IV 1. on DV	0.15	0.38	0.70	
Direct effect IV 2. on DV	-0.13	-1.67	0.10	
Direct effect IV 3. on DV	0.72	1.77	0.08	
Direct effect IV 4. on DV	0.10	0.66	0.51	
c path				
Total effect IV 1. On DV	0.26	0.53	0.60	
Total effect IV 2. On DV	-0.15	-1.67	0.10	
Total effect IV 3. On DV	0.29	0.63	0.53	
Total effect IV 4. On DV	0.24	1.42	0.16	
ab paths				
Indirect effect IV 1.	0.09		0.69	-0.30, 0.65
Indirect effect IV 2.	-0.02		0.68	-0.09, 0.07
Indirect effect IV 3.	-0.43		0.10	-1.06, 0.03
Indirect effect IV 4.	0.14		0.11	-0.02, 0.38

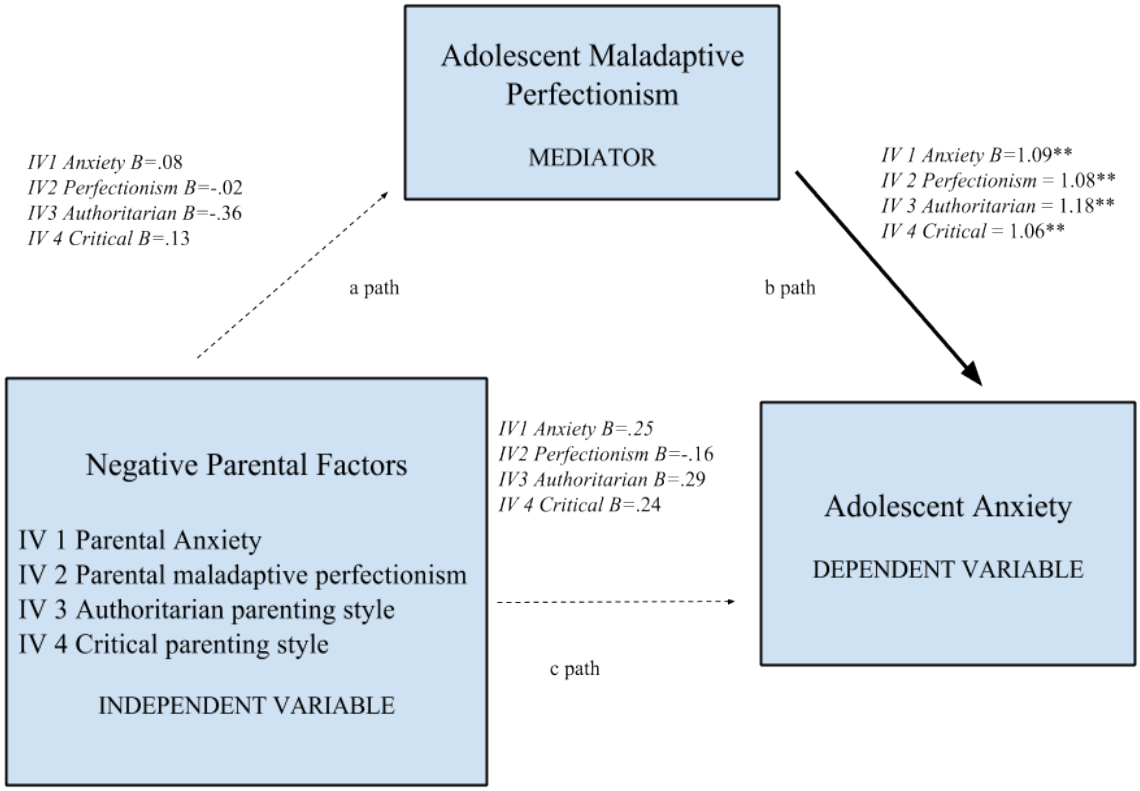

Figure 2. Mediator Model of Adolescent Anxiety predicted by Parental Factors and Adolescent Maladaptive Perfectionism. Beta coefficients are provided for each path tested. Significant paths are indicated by a solid line. Non-significant paths are indicated by a broken line. *p<0.05 **p<0.01 [2]

Discussion

The purpose of this research was to investigate the role of adolescent maladaptive perfectionism in the association between parental factors (anxiety, maladaptive perfectionism and critical and authoritarian parenting style) and adolescent anxiety. It was hypothesised that the association between parental factors and adolescent anxiety would be

[2] It should be noted that the pattern of results were the same when the clinical and community samples were analysed separately. The clinical and community samples were analysed together as one sample using one continuous measure of anxiety to increase the power of the sample.

partially mediated by maladaptive adolescent perfectionism. Contrary to predictions, there was no evidence that parental factors (including perfectionism and parenting style) were significantly associated with either adolescent perfectionism or anxiety, meaning there was no evidence for the proposed mediator models.

Results are in contrast to literature from the child anxiety and perfectionism field. For example, Affrunti and Woodruff-Borden (2014) found that parental perfectionism and parental over-control were associated with child anxiety. The results presented here also contradict the study by Enns, Cox and Clara (2002) which found that harsh parenting was associated with maladaptive perfectionism in college students. Affrunti and Woodruff-Borden (2014) also found that parental perfectionism mediated the relationship between parental anxiety and parental over-control which contradicts the results of this study as parental perfectionism was not associated with authoritarian parenting. One possible explanation for this discrepancy is the age ranges utilised. Affrunti and Woodruff-Borden (2014) focussed on a relatively wide developmental period of 3-12 year olds, while the current study focussed on adolescents. The resulting discrepancies may simply reflect differences in developmental processes of importance for child versus adolescent psychopathology. The adolescent literature shows that social pressure and peer group influence becomes more important during adolescence due to identity individuation (Nigg and Nagel, 2016). Therefore parental influence on anxiety and maladaptive perfectionism may reduce in adolescence. Indeed, the negative cognitions associated with anxiety in children tend to be different to those shown in adolescents, with an increased focus on peers rather than family (Kendall & Chansky, 1991; Gradisar, Gardner & Dohnt, 2011). Thus, for the developmental period captured in the current study it may be that peer expectations are more influential on the development of adolescent maladaptive perfectionism than parental expectations, which is why parental factors were not associated with adolescent anxiety and perfectionism.

Maladaptive adolescent perfectionism was associated with adolescent anxiety, which is in line with predictions and the literature suggesting that maladaptive paediatric perfectionism places young people at risk of anxiety (Bieling, Israeli, & Antony, 2004; Essau et al., 2008; Flett & Hewitt, 2002; Stornelli et al., 2009). Parental anxiety was also associated with parental perfectionism in this research, which is in line with the results found by Affrunti and Woodruff-Borden (2014). However the fact that parental anxiety was not associated with adolescent anxiety is in contrast to previous literature, particularly from the child

anxiety field (e.g., Hudson & Rapee, 2001; Murray et al., 2009; Murray et al., 2012). It should be noted that this result may be due to the fact that the majority of the parent sample reported no symptoms of anxiety. This may mean that the sample of parents captured simply did not experience anxiety, although some anecdotal evidence suggests it could also be responder bias (particularly for the community sample). A sample which included a better variance of anxious parents may have shown results which were in line with the current literature.

The fact that authoritarian and critical parenting was not associated with adolescent anxiety or perfectionism was also not in line with the current literature (Barrett, Shortt, & Healy, 2002; Bayliss, 2011, Affrunti & Woodruff-Borden, 2014). However, it should be noted that the majority of parents were not rated as being critical towards their child (through child report) so these results would not replicate to critical parenting environments. However, again, these results may also be explained by our focus on adolescents. Much of the paediatric anxiety literature focussed on child samples, where the impact of parenting may be more salient.

Overall the results imply that a parenting intervention for parental maladaptive perfectionism maynot be an important therapeutic target for adolescent anxiety. The fact that an adolescent sample has shown different results to a child sample suggests the effects of parental relationships on adolescents may not follow the same pattern as children and that there is a need to develop adolescent-specific models of mental health problems. There is already previous research suggesting that adolescence is developmentally different from childhood and adulthood and therefore requires an adolescent-specific understanding of the factors which trigger and maintain anxiety (Beck, 2010), which this research supports.

Limitations and Future Directions

Although these results are original they are preliminary and have certain limitations. Clinical levels of anxiety were not highly represented within this sample as low recruitment from CAMHS meant that a combined sample of anxious and non-anxious adolescents was used to increase the power of the sample. This limits the generalisability of the results of the study to anxious adolescent populations as less than half of the sample were clinically anxious. Therefore further research using a larger clinical sample should be implemented as this would have increased power to show whether maladaptive parental perfectionism can explain the development of adolescent maladaptive perfectionism and

anxiety. It may also enable an assessment of the effects of perfectionism on specific anxiety disorders (e.g. OCD or generalised anxiety disorder). As these data are cross-sectional they are correlational and cannot confirm causation. For example, theoretically child anxiety may trigger child maladaptive perfectionism to give the child a sense of control and reduce anxiety, rather than the other way around. Therefore causal mechanisms still need to be assessed using longitudinal research methodologies. Child age was not associated with child anxiety and therefore was not controlled for in analyses, but this cross-sectional design means we cannot infer that adolescent maladaptive perfectionism has consistent effects across adolescent development. The findings presented here should also be considered with caution as they are based on self-report questionnaires, which are biased towards the viewpoint of the participant and are open to responder bias. This is particularly the case for the parenting measures. The use of behavioural observation measures (Gar & Hudson, 2008) or other informants would have increased the validity of results found. The generalisability of the sample should also be considered as the sample may be biased towards more motivated individuals as CAMHS clinicians may have invited people on their caseload who they thought 'were likely to take part' and the community sample was self-selecting (i.e. everyone in the school were invited to take part, but only some chose to take part). Recruitment of the clinical sample occurred across seven CAMHS sites, with differing socio-economic contexts, but ultimately families were from similar geographic regions. Moreover, the community sample was recruited from one school with a middle to upper class demographic. It would be useful for future research to explore these questions with a wider, and perhaps more representative, sample.

Conclusion

This study examined a theoretical model of child anxiety predicted by child maladaptive perfectionism, parent maladaptive perfectionism, parental anxiety and critical/authoritarian parenting style. Overall, little support was found for this model. Parental perfectionism and a negative parenting style was not significantly associated with adolescent's own perfectionism or with their anxiety symptom severity. Thus, contrary to hypotheses, adolescent perfectionism did not mediate an association between parental psychopathology and child psychopathology (i.e. anxiety). This research suggests that parental factors may not be as influential in adolescents as it has been demonstrated with children but the study needs to be replicated in a larger sample of clinically anxious adolescents. However research suggests that looking into other factors which affect adolescent perfectionism and

anxiety, for example, the influence of peers, may be beneficial. Exploring the possible contributors to the development of maladaptive perfectionism through focus groups with adolescents may be a useful next step. As adolescent maladaptive perfectionism was significantly associated with adolescent anxiety this research supports previous research that perfectionism is an important risk factor in the development of adolescent anxiety. Future research should replicate this study with a larger sample of clinically anxious adolescents. Future research should also aim to understand causal pathways and the relative importance of other factors on adolescent maladaptive perfectionism so that more specifically targeted treatment plans for adolescent anxiety can be developed, particularly when it presents as co-morbid with perfectionism.

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Executive Summary of Main Research Project

The factors involved in the development of adolescent anxiety need to be researched further as current treatments are only effective for 50-60% of children and adolescents suffering from anxiety. One of the factors which may affect the development of adolescent anxiety is maladaptive perfectionism. Maladaptive perfectionism involves an individual perceiving that others require them to be perfect and the individual striving to achieve high standards and being very critical of themselves if they do not reach these standards. It is unclear what may affect the development of adolescent maladaptive perfectionism. It is also unclear how parental factors, such as parental anxiety and parental maladaptive perfectionism and authoritarian/critical parenting may affect the development of adolescent anxiety. One idea/hypothesis is that parental factors may affect the development of adolescent maladaptive perfectionism, which may in turn affect the development of adolescent anxiety.

This research was trying to assess if adolescent maladaptive perfectionism explains the association between parental anxiety, parental maladaptive perfectionism, critical and authoritarian parenting style and paediatric anxiety. This means that this research was trying to assess if parental factors may be involved in the development of adolescent maladaptive perfectionism and adolescent anxiety. These ideas were explained using a 'mediator model' which included adolescent maladaptive perfectionism acting as a mediator between parental factors and adolescent anxiety (i.e. parental factors may cause an adolescent to develop maladaptive perfectionism, which may then cause the adolescent to develop anxiety). The research was also trying to assess if adolescent maladaptive perfectionism might be one of the factors which affects whether adolescents develop anxiety.

In order to assess this, sixty-six parent-adolescent pairs from a local community school and some local child and adolescent mental health services completed three questionnaires each. Sixteen of the adolescents included were accessing the child and adolescent mental health services as they were suffering from an anxiety disorder. The questionnaires measured anxiety, perfectionism and critical and authoritarian parenting style. Adolescents were aged between 12 and 17 and most of them were females (54.5%). Most of the parents who took part were mothers (80.3%). The questionnaire data which was collected was

analysed using a statistical method called bootstrapping mediator analysis which was developed by Preacher and Hayes (2008). The mediator model was not supported by the data because adolescent maladaptive perfectionism was not associated with parental anxiety, parental maladaptive perfectionism and critical and authoritarian parenting styles. Parental factors were also not associated with adolescent anxiety. This means that parental factors did not seem to affect the development of adolescent maladaptive perfectionism and adolescent anxiety in this sample of people. However, the association between adolescent maladaptive perfectionism and adolescent anxiety was significant. This means that adolescent maladaptive perfectionism was associated with adolescent anxiety and therefore may be involved in the development of adolescent anxiety. The association between parental maladaptive perfectionism and parental anxiety was also significant.

Overall the results do not support most of the hypotheses which were being tested. However, one of the results does support one of the hypotheses and is in line with the literature which suggests that adolescent maladaptive perfectionism may be a factor in the development of adolescent anxiety. The fact that parental factors were not associated with adolescent maladaptive perfectionism or adolescent anxiety implies that the processes associated with the development of maladaptive perfectionism and anxiety in adolescents may be different to the processes which occur in children. This means that further research should be done looking at the factors involved in the developmental of adolescent maladaptive perfectionism and adolescent anxiety so that the treatment of adolescents suffering from anxiety and maladaptive perfectionism can be improved.

Connecting Narrative

Introduction

This connecting narrative aims to comment on the process of research development and implementation for the literature review, service improvement project, main research project and case studies included in this research portfolio. It also alludes to my plans for future research.

Literature Review

My literature review was developed from an interest in systemic therapy; consequently, I approached Dr Catherine Butler (supervisor) who is very experienced in using systemic therapies. We met to discuss possible options in line with the current literature and agreed that a focus on one of the 'third wave' systemic therapies would be both interesting and novel. A brief look at the current literature highlighted that solution-focused systemic therapy has been used with adults with mental health problems, but was not commissioned within the NHS. Solution-focused therapy (SFT) was also a therapeutic modality that I was particularly interested in. Catherine's experience working in the systemic therapy field had highlighted to her that systemic therapists may not be aware of the research methodologies and measures available to evaluate SFT. This lack of awareness and my interest in how to measure the effectiveness of solution-focused systemic therapy led to a plan to review and evaluate the current research methodologies being used to evaluate SFT in adults with mental health problems. I developed search terms based on previous literature reviews and knowledge of the area. Going through the papers found took longer than I had anticipated and deciding which papers to include required further discussion with Catherine. It also highlighted to me that many solution-focused researchers use vague and ambiguous titles so abstracts and full paper reviews were needed on many additional papers. On reflection, as reviewing the literature took a lot longer than I had hoped I was lucky that my interest in the topic continued; this ensured that I completed a thorough and robust review of the SFT literature. This has reiterated to me the importance of completing research related to topics which I am passionate about and the value of working with a motivated colleague. I also hope that my diligence has resulted in a robust review of the research methodologies used to evaluate solution-focused therapy in adults with mental health problems, which will be used by solution-focused therapists to conduct further evaluative research.

Service Improvement Project

My service improvement project included integrating the use of a formulation model into a mental health service's assessment process. It was developed as the initial assessment process in my adult mental health placement required some improvement. I worked closely with Dr Jennie Dickerson (field supervisor) and Matthew Truscott (service manager) to develop a formulation model and process which the assessment team could use to organise the information they gather from a client during the first mental health assessment. I hoped that the implementation of this model would enable the service to become more effective at mental health treatment planning and therefore improve the assessment process. I had the support of Dr Jo Daniels (university supervisor) in the initial development of the project and Dr Cathy Randall-Philips (university supervisor) in the analysis and write-up stages. Trying to decide how to measure the implementation of the new formulation model in terms of service improvement was quite difficult. We agreed that staff questionnaires (including thematic analysis) and audit of assessment letters and meeting notes would enable an assessment of the use of the formulation and recommendations for further service improvement. University ethics and NHS R&D approval was sought and obtained in order to complete the project; my ability to obtain this early on enabled me to complete the majority of the work whilst working with the team on placement. Even though I was in the service three days a week and it was only a small assessment team it was difficult to gain feedback from all staff members. The strategies I used to support/train team members to use the formulation also varied within the team according to learning style, openness to change and personality. Indeed, many staff were resistant to change and without the support of the management team it would have been difficult to implement the use of the 5Ps. On reflection the staff team were also very stressed at the time; my engagement, training and leadership skills were required and developed throughout this experience. Thematic analysis was not something I had used previously so learning and using this method was a steep learning curve for me. However I was able to cross-check the themes found with a clinical psychology trainee in the year above; Sarah was invaluable in supporting me to ensure the themes faithfully represented the data. My service improvement project is something I am particularly proud of as the formulation is now being rolled out and used across all of the adult mental health services in Bristol. The feedback I received following the report was also very positive and it made me realise the value of a clear, manageable and person-oriented formulation in assessment. The fact that

service users have fed back that they see the assessment as an intervention in its own right now, due to the use of the formulation, has also inspired me to continue to battle resistance to change when trying to improve services. The long reaching effects on the whole service of the use of formulation at initial mental health assessment have also reminded me how powerful an effective formulation model can be. I have always been an advocate for formulation at each stage of the mental health service system and I think one of the main roles of a clinical psychologist is to advocate for this and support its implementation. I hope that the roll out of this model will enhance psychological thinking across the adult mental health services in Bristol.

Main Research Project

Through working as a CBT therapist in the years previous to clinical psychology training I had noticed the effects of perfectionism on anxiety. I also embarked on clinical psychology training as I had developed an interest in working with children. For these reasons I had a clear idea from the start that I wanted to look into perfectionism and anxiety in children for my main research project. Claire Lomax agreed to be my university supervisor as a previous trainee she had supervised had completed a literature review on paediatric perfectionism. I met with the previous trainee, Charlotte Morris, and developed a series of possible hypotheses to test based on my own reading and her literature review. Claire supported me to reduce the hypotheses down so that they were focused on parenting, perfectionism and anxiety in children; this took a surprisingly long time and on reflection I could have been more boundaried in the amount of times we changed the hypotheses and research design. Dr Rachel Hiller and I finalised the mediator model design and Rachel supervised data collection, analysis and write-up of the paper. I met with Dr Sarah Elgie and she agreed to be my North Bristol CAMHS field supervisor. The headmaster at a local Bristol school also agreed to be a data collection site. The process of gaining full ethical approval through IRAS, REC, NHS R&D and university ethics was time consuming and complicated; on reflection this was the most stressful part of the research and probably one of the biggest barriers to research being conducted within the NHS. As my research was with adolescents it required a full ethics panel review; this was an interesting discussion and developed my awareness of ethical approval rationales. An adolescent and their parent in a CAMHS service looked over the questionnaires to ensure they made sense and were manageable. Data collection started in June 2015 and was completed by April 2016; in total I collected data for 11 months but was not able to recruit a large clinical sample. This

highlights the difficulties in recruiting through CAMHS services; I spent the first 6 months recruiting data from North Bristol CAMHS services. I did a 1-hour perfectionism training for the North Bristol CAMHS services and presented my research at multiple team meetings. I also liaised with clinicians and Maria Loades (CAMHS tutor) throughout this period. I made adjustments to the research design following feedback from CAMHS clinicians. This required REC minor amendment approval which was straightforward. Unfortunately, this only resulted in 4 participants and my university supervisor helped me to realise that I needed to increase recruitment sites so in October 2015 I approached Dr Vicki Heathcote (my CAMHS placement supervisor) who agreed to be my Oxford Health CAMHS field supervisor. I requested another minor REC amendment and added Oxford Health CAMHS as another recruitment site. Unfortunately the Oxford Health R&D process took 4 months to complete; this was probably the most frustrating part of my clinical training. Due to this delay I only had 3 months to collect data in the Oxford Health CAMHS teams; luckily I had pre-existing relationships with the clinicians in these teams and was able to gain 12 more participants during this time. On reflection I should have capitalised on these existing relationships at an earlier stage (i.e. during my CAMHS placement). Overall I liaised with 7 CAMHS teams over the 11 months; this was incredibly time consuming and difficult to manage at times given the accompanying clinical training expectations. The school and my university and field supervisors were very supportive throughout the process. The amount of time and effort put into data collection did not feel equal to the amount of participants I gained which was disheartening; the mentoring support from my university supervisor was invaluable in maintaining my motivation. I have learnt a lot throughout this process which I will utilise in future research and am lucky that my interest in perfectionism and working with children and adolescents did not waver.

Case Studies

Completing clinical case studies was something I really enjoyed. Linking my clinical work with the literature and reflecting on how I could have improved outcomes has definitely improved my clinical practice. I was also able to hone my skills in writing case studies to a publishable standard; indeed, one of my case studies has been accepted as a poster presentation for the annual British Association for Behavioural and Cognitive Psychotherapies (BABCP) conference. The process of selecting a suitable case study and obtaining consent was completed with the support of my placement supervisors. The theme

throughout my case studies is adapting CBT to complex cases; this is not surprising given my past affiliation with CBT. The complexity of adapting CBT for clients with learning disabilities, physical health problems, eating disorders/adolescence, social-emotional communication difficulties and severe and enduring low self-esteem was made apparent to me through this process. However, completing a series of case studies has also highlighted to me that sometimes simplicity is the key to formulation when working with complex cases (i.e. placing the client's main difficulty in the centre of a negative flower formulation with maintenance factors surrounding it).

Future Research Plans

I am hoping to publish my research and present the results of my literature review at the family process conference. I am also looking forward to disseminating the case study which included the use of the 'vicious flower' for anorexia nervosa, at the BABCP conference. Replicating the methodology used in my service improvement project one year later would add to the literature on the effects of formulation in teams. The results of my main research project also suggest that developing adolescent specific formulations of mental health problems, based on further research assessing which factors affect the development of adolescent maladaptive perfectionism and adolescent anxiety, is important. This is something I will hold in mind with my clinical cases and possibly publish a case series on. I am aware that my ability to complete research will depend on my work setting; I am nervous that the NHS will not support me to continue with research. However, I feel confident that I could run other research projects with the support of enthusiastic NHS colleagues. I also feel a sense of obligation to continuing research to improve practice and highlight the skill set of clinical psychologists to other professional colleagues.

Appendices

Appendix A: 5Ps information sheets

Write up Guide for Assessment Letters

Formulation summary *NB: this should summarise the key points and each point mentioned should always be discussed directly in relation to the main problem the person is presenting with. This framework can also be used to guide which parts of a person's history you choose to include in the main body of the letter.*

Guide for the text

- **Predisposing:** *Key events* from their history that may have made the person vulnerable to developing the main problem they are presenting with.
- **Precipitating:** *Key events* that happened close to the development of the main problem they are presenting with. These events may have triggered or amplified the main problem.
- **Perpetuating:** *Key factors* that maintain the main problem the person is presenting with.
- **Protective:** *Key factors* that protect the person from, or have a positive impact on, the main problem the person is presenting with.

Example

Formulation Summary: Elizabeth has grown up in a farming family, and did not enjoy the farming life. She moved away and qualified as a PE teacher and enjoyed a successful career until her father died. After this event, her life has become increasingly difficult, and she is now in a less rewarding job and is concerned about her future and managing her financial affairs. Elizabeth explained that she has good support from her sister and partner which helps her to cope.

Initial Understanding **NB:** *This is only a guide and you can write it in any way that you wish, but all of these areas should be considered and your clinical understanding of how the problem is maintained should be communicated clearly.*

Guide for the text

- My impression is that your main difficulties are *[insert main problem]*.**(problem)**
- It seems that *[insert key events from history which you think impact on the problem]* are impacting on *[insert main problem]***(predisposing)**
- and *[insert key trigger factors which you think triggered the main problem]* triggered *[insert main problem]*. **(Precipitating)**
- My impression is that *[Insert key maintenance factors including unhelpful behaviours and thinking which you think are maintaining the problem]* are maintaining *[insert main problem]*. **(Perpetuating)**
- It also seems to me that *[i*nsert *key protective factors which you think have a positive impact on the problem]* have a positive impact on *[insert main problem]*. **(Protective)**

Example

Initial Understanding: My impression is that Elizabeth has some difficulty coping with her life without the support of her parents. It seems that she has not been able to develop a sense of her own autonomy, independence and agency in her life. She acknowledges that she needs help with managing her difficult situation, but is reluctant to accept help from mental health services. She said that she does not want counselling or medication. Its seems the her partner and her sister can help her to cope, but Elizabeth feels over-reliant on them.

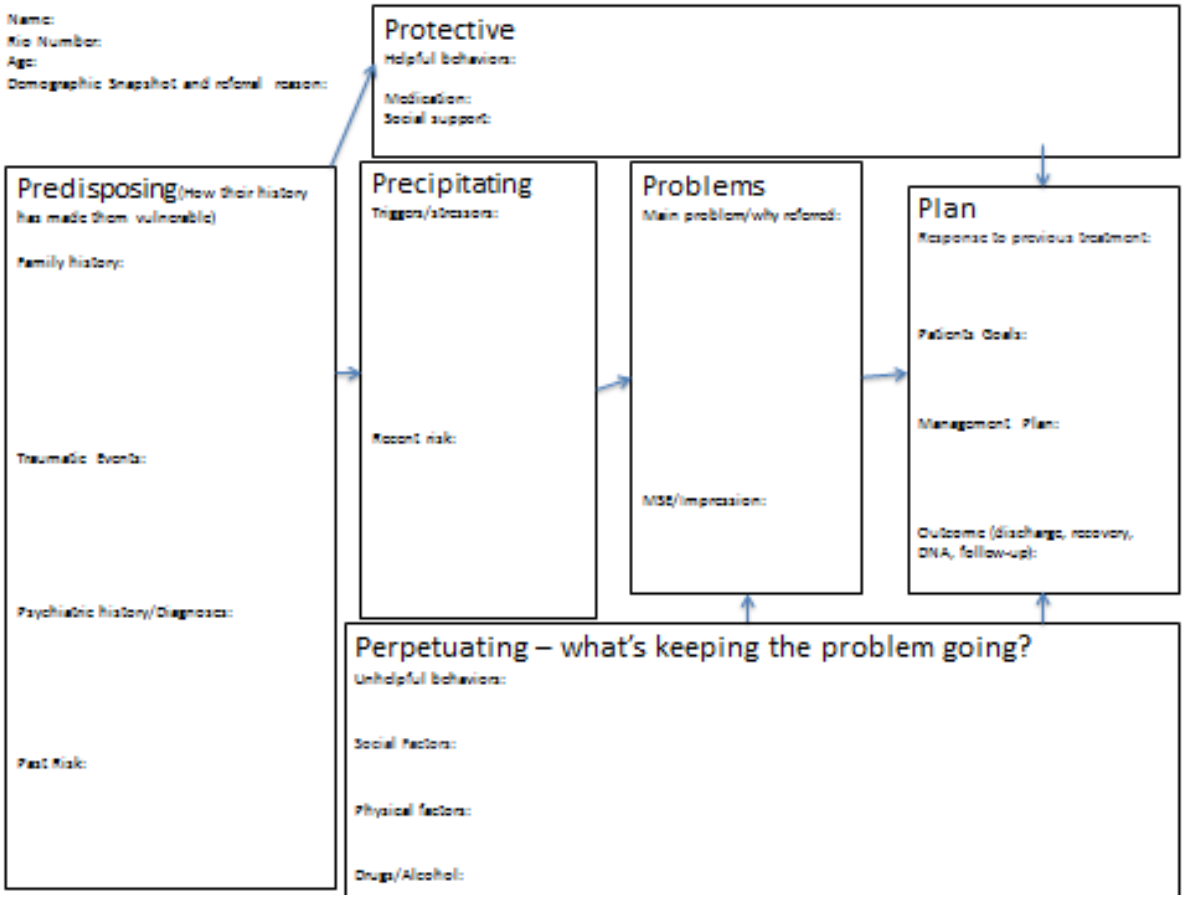
Plan/Recommendations *NB: Sometimes some things we recommend will have an impact on a few of the key factors at once so we can just merge it into one sentence, but it always needs to be clear how each recommendation links to the factors which seem to be maintaining the problem aswell as the persons goals*.

Guide for the text : The recommendations can simply be a list, but each recommendation should link with the initial understanding.

Example

Following discussion with the recovery team, I recommend the following plan of care.

1) Elizabeth may wish to ask Citizen's advice Bureau whether they have suggestions regarding the letting of her cottage.
2) Elizabeth said that she had been stable whilst taking Stelazine. This is now available from a different supplier, after having been discontinued. Elizabeth may wish to consider re-starting this medication, and I suggest that you could discuss this with her.
3) If Elizabeth decided in the future that she would like to engage with counselling, Network Counselling provides a good counselling service with variable fees according to individual circumstances. Their phone number is 01179507271.



Appendix B: 5Ps assessment letter template

Formulation summary

During assessment [**insert patients name**] described [**Insert key events from the person's history that may have made them vulnerable to developing the main problem they are presenting with**] and [**Insert key events that happened close to the development of the main problem they are presenting with**]. [**Insert patients name**] also described [**Insert key factors that maintain the main problem the person is presenting with**] and [**Insert key factors that protect the person from, or have a positive impact on, the main problem the person is presenting with**].

Initial Understanding

My initial understanding is that [**insert patient's name**] main difficulties are [**insert patients main problem(s)**]. It appears that [**insert key events from history which you think impact on the problem**] are impacting on [**insert patients main problem(s)**] and [**insert key trigger factors which you think triggered the main problem**] have triggered or amplified [**insert main problem**]. My impression is that [**Insert key maintenance factors including unhelpful behaviours and thinking which you think are maintaining the problem**] are also maintaining [**insert patients main problem(s)**]. It also seems to me that [**insert key protective factors which you think have a positive impact on the problem**] can help to alleviate [**insert patients main problem(s)**].

Recommendations

Following discussion with the recovery team, and in light of my initial understanding of [insert patient's name]'s main difficulties, I am recommending the following plan of care:

1) …
2) …
3) ….

Appendix C: 5Ps assessment meeting forms

Date: **Assessment Meeting** Present

Name / Rio:		Assessor/Date	
Referrer and Reason			
Snapshot (age, demographic, accommodation, relationship, employment)			
Problem? (Presenting complaint, current risk, MSE, Impression)	Precipitating Factors? (triggers/stress, Why now?)	Perpetuating:? (Unhelpful behaviours, Social/Physical Factors, Drugs Alcohol)	Predisposing? (family history, traumatic events, psych history).
Risk:			
Protective : (Helpful behaviours, Support, Medication)			
Plan: (Response to previous treatment: Patients Goals: Management Plan: Outcome (discharge, recovery, DNA, follow-up):			
Name / Rio:		Assessor/Date	
Referrer and Reason			
Snapshot (age, demographic, accommodation, relationship, employment)			
Problem? (Presenting complaint, current risk, MSE, Impression)	Precipitating Factors? (triggers/stress, Why now?)	Perpetuating:? (Unhelpful behaviours, Social/Physical Factors, Drugs Alcohol)	Predisposing? (family history, traumatic events, psych history).
Risk:			
Protective : (Helpful behaviours, Support, Medication)			
Plan: (Response to previous treatment: Patients Goals: Management Plan: Outcome (discharge, recovery, DNA, follow-up):			

Appendix D: Assessors Questionnaire

Bath BA2 7AY United Kingdom

Telephone +44 (0)1225 385506

Feedback Questionnaire

Thank you for taking the time to complete this questionnaire as part of the 5Ps formulation research. If there are any questions that you do not wish to answer please feel free not to answer them.

Core Profession:

Anonymity Number:

- Did you attend Jennie and Beth's Formulation training on the Team day last November?

  Yes ☐

  No ☐

- What training support have you received in the use of the 5Ps?

  5Ps guidance information ☐ Yes ☐ No

  5Ps assessment letter template ☐ Yes ☐ No

  Discussion with Rochelle on the use of the 5Ps ☐Yes ☐No

  Discussion with Jennie or Beth on the use of the 5Ps ☐Yes ☐No

  Other – please specify below

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……...

- What have you found has been difficult about trying to include the predisposing, precipitating, perpetuating and protective factors influencing a patient's mental health problem in the assessment letter?

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- What have you found has been difficult about trying to include recommendations which address the predisposing, precipitating, perpetuating and protective factors influencing a patient's mental health problem in the assessment letter?

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- What would help you to use the 5Ps formulation in your assessment work?

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- How could the assessment letter template/5Ps guidance document be improved so that the predisposing, precipitating, perpetuating and protective factors which influence patient's mental health problems are communicated clearly?

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- Any other comments you would like to make about the 5Ps?

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If completing this questionnaire has raised any issues or concerns please do not hesitate to come and speak to me or contact me on rochellebarden@nhs.net to arrange a time to speak with me.

Appendix E: Data Collection Tables

For each assessment letter analysed these tables will be completed with a ‘yes’ or ‘no’:

Table1.

Anonymity Number	Predisposing Factors stated	Precipitating factors stated	Perpetuating Factors stated	Protective factors stated	Formulation summary heading included and completed	Initial understanding heading included and completed	Formulation summary completed on RIO with 5Ps	Assessors Background Profession

Table 2.

Anonymity Number	Recommendations linked to predisposing factors	Recommendation’s linked to precipitating factors	Recommendations linked to perpetuating factors	Recommendations linked to Protective factors	Recommendations included which were not linked to any of the 5Ps	Assessors background profession	5Ps Training received

For each patient written about in the assessment meeting case notes that are selected these tables will be completed with a ‘yes’ or a ‘no’:

Table 3.

Anonymity Number	Predisposing factors stated	Precipitating factors stated	Perpetuating factors stated	Protective factors stated	Background profession of person leading the assessment meeting/completing notes	5Ps form used

Table 4.

Anonymity Number	Recommendations linked to predisposing factors	Recommendation's linked to precipitating factors	Recommendations linked to perpetuating factors	Recommendations linked to Protective factors	Recommendations included which were not linked to any of the 5Ps

Appendix F. Themes and Quotes

Name of Theme	Number of Sources	Number of quotes	Quote 1	Quote 2	Quote 3	Quote 4	Quote 5	Quote 6	Quote 7	Quote 8
Applicability - meaningful applicability for assessment staff	2	6	<Internals\\Participant Questionnaire -006> - § 2 references coded [10.91% Coverage] Reference 1 - 8.17% Coverage I am not sure if it needs improving. For me I found the assessment letter template useful as an example of how a 5Ps formulation could be presented in a letter to a client. I no longer use the template but still apply the 5P principle in formulations. The formulation box diagram is useful and is something I continue to use from time to time. For me it	<Internals\\Participant Questionnaire -006> - § 3 references coded [8.42% Coverage] Reference 1 - 1.08% Coverage The 5ps formulation box diagram, which I already use	<Internals\\Participant Questionnaire -006> - § 2 references coded [10.91% Coverage] Reference 2 - 2.74% Coverage I still find the formulation diagram [the box diagram] useful as it also helps me make sense of the situation that I have assessed	<Internals\\Participant Questionnaire -006> - § 1 reference coded [2.81% Coverage] Reference 1 - 2.81% Coverage For me I found the assessment letter template useful as an example of how a 5Ps formulation could be presented in a letter to a client.	<Internals\\Participant Questionnaire -006> - § 3 references coded [8.42% Coverage] Reference 2 - 4.59% Coverage I no longer use the template but still apply the 5P principle in formulations. The formulation box diagram is useful and is something I continue to use from time to time. For me it works well and does not need improving.	<Internals\\Participant Questionnaire -007> - § 2 references coded [1.35% Coverage]. Reference 1 - 0.69% Coverage no difficulties encountered …		

			works well and does not need improving.							
Applicability - non-meaningful applicability to reader	2	2	<Internals\\Participant Questionnaire -005> - § 1 reference coded [3.71% Coverage] Reference 1 - 3.71% Coverage Do we really need another way to write up assessments ? Ultimately it won't make any	<Internals\\Participant Questionnaire -004> - § 1 reference coded [3.65% Coverage] Reference 1 - 3.65% Coverage I think it is too prescriptive a way of writing a letter that is specifically aimed at the						

			difference to the information that G.Ps take in when the receive an assessment	client/G.P. and may not be understanda ble by those reading the letter						

Knowledge	1	1	<Internals\\Participant Questionnaire -001> - § 1 reference coded [2.49% Coverage] Reference 1 - 2.49% Coverage I've sometimes/quite often found it hard to identify perpetuating factors that might be influencing problem							
Populating template - seeking simplicity	2	3	<Internals\\Participant Questionnaire -005> - § 1 reference coded [1.20% Coverage] Reference 1 - 1.20% Coverage. it makes the letter too long winded and complicated.	<Internals\\Participant Questionnaire -005> - § 3 references coded [4.63% Coverage] Reference 1 - 1.94% Coverage It is difficult to sort the information from an assessment into these specific areas	<Internals\\Participant Questionnaire -007> - § 1 reference coded [0.93% Coverage] Reference 1 - 0.93% Coverage. I always propose keeping things simple					

Populating template - identifying recommendations	2	2	<Internals\\Participant Questionnaire -001> - § 1 reference coded [1.84% Coverage] Reference 1 - 1.84% Coverage not always possible to include recommendations that cover/address all of these	<Internals\\Participant Questionnaire -003> - § 1 reference coded [1.68% Coverage] Reference 1 - 1.68% Coverage it is not always possible to address all 5Ps in the recommendation's.						
populating template - extracting assessment information	4	8	<Internals\\Participant Questionnaire -001> - § 1 reference coded [1.63% Coverage] Reference 1 - 1.63% Coverage paperwork/template with 5Ps headings and space under each to write in!	<Internals\\Participant Questionnaire -003> - § 1 reference coded [2.71% Coverage]. Reference 1 - 2.71% Coverage To have an assessment questionnaire which includes/addresses all 5Ps or adapt old questionnaire to 5P framework	<Internals\\Participant Questionnaire -005> - § 3 references coded [4.63% Coverage] Reference 1 - 1.94% Coverage It is difficult to sort the information from an assessment into these specific areas	<Internals\\Participant Questionnaire -006> - § 3 references coded [8.42% Coverage] Reference 1 - 1.08% Coverage The 5ps formulation box diagram, which I already use	<Internals\\Participant Questionnaire -006> - § 1 reference coded [2.81% Coverage] Reference 1 - 2.81% Coverage For me I found the assessment letter template useful as an example of how a 5Ps formulation could be presented in a letter to a client.	<Internals\\Participant Questionnaire -003> - § 1 reference coded [2.71% Coverage] Reference 1 - 2.71% Coverage To have an assessment questionnaire which includes/addresses all 5Ps or adapt old questionnaire to 5P framework	<Internals\\Participant Questionnaire -005> - § 1 reference coded [1.50% Coverage] Reference 1 - 1.50% Coverage making a comparison against existing formats such as SBAR and MSE	<Internals\\Participant Questionnaire -006> - § 1 reference coded [3.45% Coverage] Reference 1 - 3.45% Coverage Initially I found it difficult using the formulation template. At times it was difficult getting the formulation to fit in with the formulation

										the assessed situation
flexibility to use language appropriate to client	2	3	<Internals\\Participant Questionnaire -004> - § 1 reference coded [3.65% Coverage] Reference 1 - 3.65% Coverage I think it is too prescriptive a way of writing a letter that is specifically aimed at the	<Internals\\Participant Questionnaire -004> - § 1 reference coded [4.08% Coverage] Reference 1 - 4.08% Coverage I preferred to use my existing style of writing formulation which tend to be specifically	<Internals\\Participant Questionnaire -005> - § 1 reference coded [2.79% Coverage] Reference 1 - 2.79% Coverage. it makes the letter too long winded and complicated. Many of our clients will not have any of					

			client/G.P. and may not be understandable by those reading the letter	tailored to who I assess, language used in the assessment and their understanding/insight	the 5ps in their vocabulary					
flexibility of use	1	1	<Internals\\Participant Questionnaire -007> - § 1 reference coded [1.99% Coverage] Reference 1 - 1.99% Coverage flexibility to use it when deemed appropriate and to not use when not applicable							

Appendix G. Superordinate and subordinate theme meaning and example quotes

Superordinate Themes	Meaning of Superordinate Theme	Subordinate Themes	Meaning of Subordinate Theme	Number of Sources	Number of quotes	Example Quote
Applicability	How meaningful and useful the 5Ps is when it is applied to formulation of assessment information and assessment letters	Meaningful applicability for assessment staff	The application of the 5ps structure is useful to assessors when they are trying to make sense of/formulate assessment information	2	6	"I still find the formulation diagram [the box diagram] useful as it also helps me make sense of the situation that I have assessed" "I am not sure if it needs improving. For me I found the assessment letter template useful as an example of how a 5Ps formulation could be presented in a letter to a client. I no longer use the template but still apply the 5P principle in formulations. The formulation box diagram is useful and is something I continue to use from time to time. For me it works well and does not need improving.''
		Non-meaningful applicability to reader	The use of the 5Ps makes no difference to the way the reader understands the information they read in the assessment letter	2	2	''Do we really need another way to write up assessments? Ultimately it wont make any difference to the information that G.Ps take in when they receive an assessment'' "I think it is too prescriptive a way of writing a letter that is specifically aimed at the

						client/G.P. and may not be understandable by those reading the letter"
Knowledge	Do not have the knowledge to identify 5P factors			1	1	"I've sometimes/quite often found it hard to identify perpetuating factors that might be influencing problem''
Populating Template	The process of filling in the 5Ps assessment letter template	Seeking Simplicity	Populating the template can make things too complicated	2	3	"It makes the letter too long winded and complicated." "I always propose keeping things simple"
		Identifying Recommendation's	It can be difficult to identify recommendations when populating the template	2	2	"not always possible to include recommendations that cover/address all of these''
		Extracting assessment information	It can be difficult to extract assessment information when populating the 5Ps template as the assessment process is not supportive	4	8	"It is difficult to sort the information from an assessment into these specific areas" "To have an assessment questionnaire which includes/addresses all 5Ps or adapt old questionnaire to 5P framework'' "making a comparison against existing formats such as SBAR

						and MSE” “For me, an example letter would have been helpful too”
Flexibility	Being able to use the 5Ps in a flexible way	Flexibility to use language appropriate to client	Writing the letter according to the 5Ps template, but having flexibility to use the language a client understands	2	3	“I preferred to use my existing style of writing formulation which tend to be specifically tailored to who I assess, language used in the assessment and their understanding/insight”
		Flexibility of use	Being able to choose whether or not to use the 5Ps according to what seems appropriate	1	1	“Flexibility to use it when deemed appropriate and to not use when not applicable” “I think it is too prescriptive a way of writing a letter”

Appendix H. Table showing Raw data for Word Cloud

Word	Length	Count	Weighted Percentage (%)
formulation	11	24	4.17
letter	6	21	3.65
assessment	10	18	3.13
use	3	17	2.96
5ps	3	15	2.61
diagram	7	12	2.09
template	8	12	2.09
useful	6	11	1.91
box	3	9	1.57
existing	8	9	1.57
client	6	8	1.39
need	4	8	1.39
specifically	12	8	1.39
time	4	8	1.39
writing	7	8	1.39
difficult	9	7	1.22
found	5	7	1.22
improving	9	7	1.22
information	11	7	1.22
make	4	7	1.22
still	5	7	1.22
way	3	7	1.22
complicated	11	6	1.04
example	7	6	1.04
long	4	6	1.04
makes	5	6	1.04
winded	6	6	1.04
write	5	6	1.04
assess	6	5	0.87
assessed	8	5	0.87
insight	7	5	0.87
language	8	5	0.87
making	6	5	0.87
preferred	9	5	0.87
situation	9	5	0.87
style	5	5	0.87
tailored	8	5	0.87
take	4	5	0.87
tend	4	5	0.87
understanding	13	5	0.87
used	4	5	0.87
another	7	4	0.70
apply	5	4	0.70
assessments	11	4	0.70
clients	7	4	0.70
comparison	10	4	0.70
continue	8	4	0.70

difference	10	4	0.70
formats	7	4	0.70
formulations	12	4	0.70
longer	6	4	0.70
many	4	4	0.70
mse	3	4	0.70
presented	9	4	0.70
principle	9	4	0.70
questionnaire	13	4	0.70
really	6	4	0.70
receive	7	4	0.70
sbar	4	4	0.70
something	9	4	0.70
ultimately	10	4	0.70
vocabulary	10	4	0.70
well	4	4	0.70
wont	4	4	0.70
works	5	4	0.70
aimed	5	3	0.52
also	4	3	0.52
always	6	3	0.52
areas	5	3	0.52
find	4	3	0.52
helps	5	3	0.52
may	3	3	0.52
needs	5	3	0.52
prescriptive	12	3	0.52
reading	7	3	0.52
sense	5	3	0.52
sort	4	3	0.52
specific	8	3	0.52
sure	4	3	0.52
think	5	3	0.52
times	5	3	0.52
understandable	14	3	0.52
adapt	5	2	0.35
address	7	2	0.35
addresses	9	2	0.35
already	7	2	0.35
difficulties	12	2	0.35
encountered	11	2	0.35
fit	3	2	0.35
framework	9	2	0.35
getting	7	2	0.35
headings	8	2	0.35
includes	8	2	0.35
initially	9	2	0.35
issues	6	2	0.35
old	3	2	0.35
paperwork	9	2	0.35
possible	8	2	0.35
recommendation	14	2	0.35

space	5	2	0.35
using	5	2	0.35
applicable	10	1	0.17
appropriate	11	1	0.17
aware	5	1	0.17
cover	5	1	0.17
deemed	6	1	0.17
factors	7	1	0.17
flexibility	11	1	0.17
hard	4	1	0.17
helpful	7	1	0.17
identify	8	1	0.17
inadequate	10	1	0.17
include	7	1	0.17
influencing	11	1	0.17
keeping	7	1	0.17
know	4	1	0.17
might	5	1	0.17
months	6	1	0.17
often	5	1	0.17
perpetuating	12	1	0.17
problem	7	1	0.17
propose	7	1	0.17
quite	5	1	0.17
recommendations	15	1	0.17
referral	8	1	0.17
resources	9	1	0.17
rethink	7	1	0.17
seemed	6	1	0.17
seen	4	1	0.17
several	7	1	0.17
simple	6	1	0.17
sometimes	9	1	0.17
things	6	1	0.17

Appendix I: Updated 5Ps Assessment Forms (Apt letter to service user, Welcome letter to service user, Assessment template for service user and Assessment letter template to guide assessment staff)

Apt letter to service user:

Assessment and Recovery Team
(South)

The Petherton Centre

3 Petherton Road

Hengrove

Bristol

BS14 9BP

Tel: 01275 796200
Fax: 01275 796205

NHS No.

Dear

You have been referred to Bristol Mental Health Services by ……

We would like to offer you an appointment for an assessment on …….

This will be held at ……..

You will be seen by one of our specialist practitioners ……. who will meet with you for **30 minutes** to better understand your current situation. We do please ask that you arrive 10 minutes prior to your appointment so you can read a welcome letter and, to ensure our service is accessible to all, we will ask you to answer a brief questionnaire relating to your housing and ethnicity

During the meeting we will ask the following questions which should help make sense of the current difficulties you are experiencing:

What do you think are your main difficulties at the moment?:

Has anything happened recently that has made you feel worse?

Is there anything about your past that might be influencing how you're feeling now?

What do you think might be keeping the problem going?

Is there anything that helps?

At the end of the assessment the practitioner will provide you with a written summary of your conversation to take away with you.

We will ask you for your feedback about your experience of the assessment process.

You are welcome to bring a family member or friend with you.

If you have any questions or feel you need to speak to someone before your appointment, please call us on the above number. If you are unable to attend the appointment please let us know by calling the above number as soon as possible so that we can arrange another time.

Yours sincerely

CC

Chair
Anthony Gallagher

Trust Headquarters
Jenner House, Langley Park, Chippenham SN15 1GG

Chief Executive
Iain Tulley

Welcome letter to service user:

Welcome to your opening assessment.

We would like to run you through what to expect today.

Please take some time to read through the information sharing and consent form as provided by the receptionist, which we will ask you to sign.

You will be seen by one of our specialist practitioners who will meet with you for 30 minutes to better understand your current situation.

During the meeting we will ask the following questions which should help make sense of the current difficulties you're experiencing:

What do you think are your main difficulties at the moment?

Has anything happened recently that has made you feel worse?

Is there anything about your past that might be influencing how you're feeling now?

What do you think might be keeping the problem going?

Is there anything that helps?

At the end of the assessment the practitioner will provide you with a written summary of your conversation to take away with you.

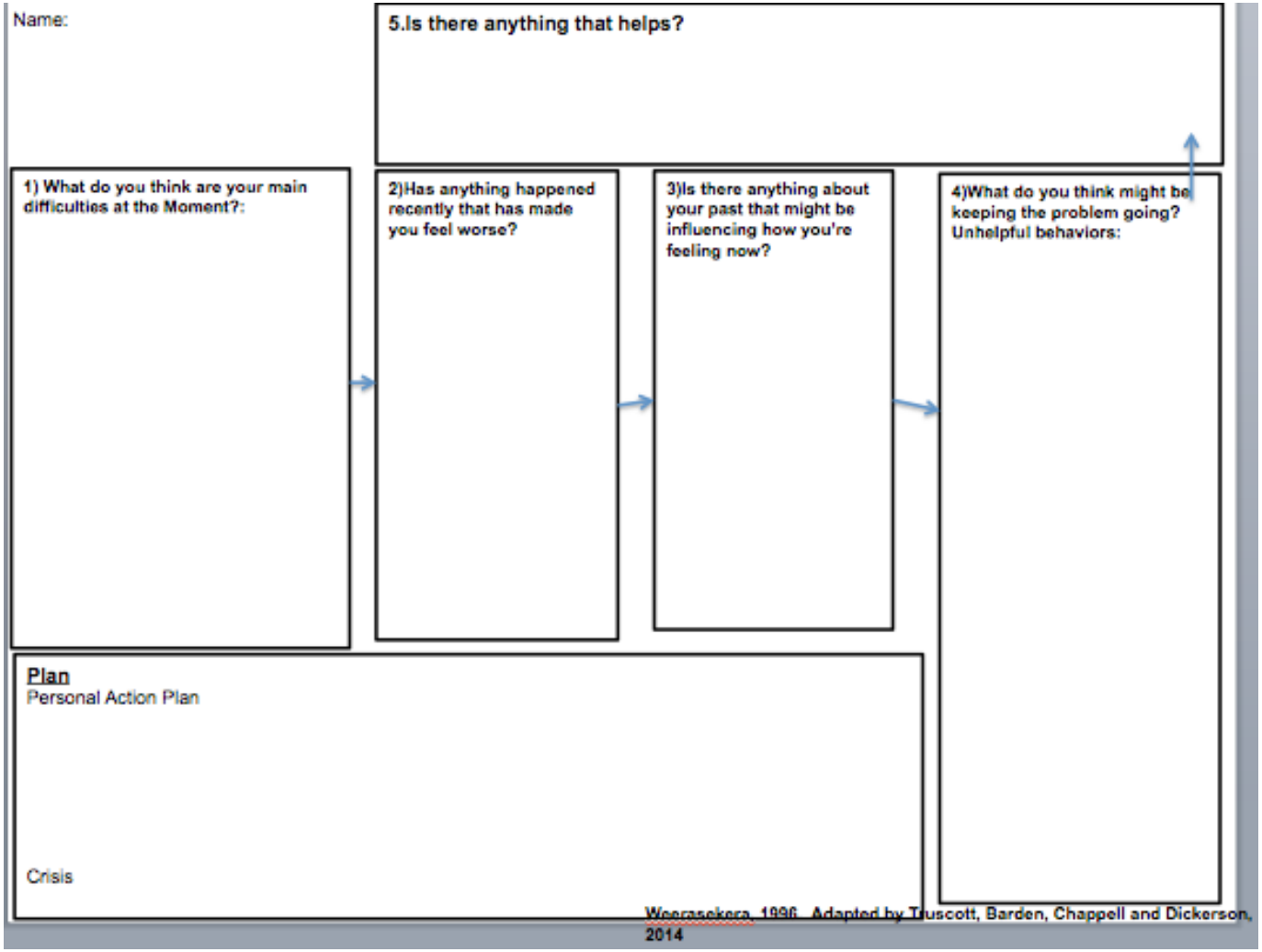
We will ask you for your feedback about your experience today. To ensure our service is accessible to all we will ask you to answer a brief question relating to your housing and ethnicity.

Regards,

Matthew Truscott

South Recovery Team Manager

Assessment template for service user:



Assessment letter template to guide assessment staff:

Date:

Dear

What do you think are your main difficulties at the moment?
(Problem)

Has anything happened recently that has made you feel worse?
(Precipitating)

Is there anything about your past that might be influencing how you're feeling right now?
(Predisposing)

What do you think might be keeping the problem going?
(Perpetuating)

Is there anything that helps?
(Protective)

RISK

MENTAL STATE EXAMINATION (Referrer Only)

Initial impression:

Plan:

Appendix J: Journal of Clinical Child and Adolescent Psychology Guidelines

Instructions for Authors

Manuscripts should be prepared according to the guidelines in the Publication Manual of the American Psychological Association (6th edition). Typing instructions, including format, organization, and the preparation of figures, tables, and references appear in the Manual. Manuscripts may be submitted as Regular Articles, Brief Reports , or Future Directions . A Regular Article may not exceed 11,000 words (i.e., 35 pages), including references, footnotes, figures, and tables. Brief Reports include empirical research that is soundly designed, but may be of specialized interest or narrow focus. Brief Reports may not be submitted in part or whole to another journal of general circulation. Brief Reports may not exceed 4,500 words for text and references. These limits do not include the title page, abstract, author note, footnotes, tables, and figures. Manuscripts that exceed these page limits and that are not prepared according to the guidelines in the Manual will be returned to authors without review. Future Directions submissions are written by leading scholars within the field. These articles provide a brief summary of important advances that are needed within a specific research or practice area pertinent to clinical child and adolescent psychology. Future Directions submissions are by invitation only and undergo peer review.

All Regular Article and Brief Report submissions must include a title of 15 words or less that identifies the developmental level of the study participants (e.g., children, adolescents, etc.). JCCAP uses a structured abstract format. For studies that report randomized clinical trials or meta-analyses, the abstract also must be consistent with the guidelines set forth by CONSORT or MARS, respectively. The Abstract should include up to 250 words, presented in paragraph form. The Abstract should be typed on a separate page (page 2 of the manuscript), and must include each of the following label sections:

1) Objective (i.e., a brief statement of the purpose of the study);
2) Method (i.e., a detailed summary of the participants, N, age, gender, ethnicity, as well as a summary of the study design, measures, and procedures;
3) Results (i.e., a detailed summary of the primary findings that clearly articulate comparison groups (if relevant);
4) Conclusions (i.e., a description of the research and clinical implications of the findings). Avoid abbreviations, diagrams, and reference to the text in the abstract. A list of up to five keywords that describe the central themes of the manuscript should be included below the abstract on page 2. *JCCAP* will scrutinize manuscripts for a clear theoretical framework that supports central study hypotheses.

In addition, a clear developmental rationale is required for the selection of participants at a specific age. The Journal is making diligent efforts to insure that there is an appropriately detailed description of the sample, including a) the population from which the sample was drawn; b) the number of participants; c) age, gender, ethnicity, and SES of participants; d) location of sample, including country and community type (rural/urban), e) sample identification/selection; f) how participants were contacted; g) incentives/rewards; h) parent consent/child assent procedures and rates; i) inclusion and exclusion criteria; j) attrition rate. The Discussion section should include a comment regarding the diversity and generality (or lack thereof) of the sample. The Measures section should include details regarding item content and scoring as well as evidence of reliability and validity in similar populations.

All manuscripts must include a discussion of the clinical significance of findings, both in terms of statistical reporting and in the discussion of the meaningfulness and clinical relevance of results. Manuscripts should a) report means and standard deviations for all variables, b) report effect sizes for analyses, and c) provide confidence intervals wherever appropriate (e.g., on figures, in tables), particularly for effect sizes on primary study findings. In addition, when reporting the results of interventions, authors should include indicators of clinically significant change. Authors may use one of several approaches that have been recommended for capturing clinical significance, including (but not limited to) the reliable change index (i.e., whether the amount of change displayed by a treated individual is large enough to be meaningful, the extent to which dysfunctional individuals show movement to the functional distribution).

All manuscripts should conform to the criteria listed in Table 1 of the 2008 APA Publications and Communications Board Working Group on Journal Article Reporting Standards (published in *American Psychologist*). These reporting standards apply to all empirical papers. In addition, JCCAP requires that reports of randomized clinical trials conform to CONSORT reporting standards, including the submission of a flow diagram and checklist. Nonrandomized clinical trials must conform to TREND criteria and meta-analyses should conform to MARS standards (see Table 4 in 2008 American Psychologist article).

Appendix K: Ethical Approval letter

Health Research Authority
National Research Ethics Service

NRES Committee North West - Greater Manchester West
Barlow House
3rd Floor
4 Minshull Street
Manchester
M1 3DZ

19 June 2015

Ms Rochelle Barden
Doctorate in Clinical Psychology
University of Bath
Claverton Down
BA27AY

Dear Ms Barden

Study title:	**Does paediatric maladaptive perfectionism mediate the association between parenting factors and paediatric anxiety?**
REC reference:	**15/NW/0458**
Protocol number:	**N/A**
IRAS project ID:	**168333**

Thank you for your submission, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Manager, Anna Bannister, nrescommittee.northwest-gmwest@nhs.net. Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Appendix L: CAMHS Clinician Screening Tool

Department of Psychology | UNIVERSITY OF BATH

Clinician Screening Tool for The Child Anxiety and Perfectionism Study

Bath BA2 7AY United Kingdom

Telephone +44 (0)1225 385506

	Yes	No
Is this child's primary problem **Anxiety? i.e. separation anxiety, specific phobia, OCD or GAD?** (NB: If primary problem is psychosis, bipolar or attachment disorder they are not eligible- if their main problem is anxiety and they have attachment difficulties as a secondary problem i.e. not diagnosed with attachment disorder, that is fine)		
Is this child aged between **12 and 17**?		
Has this child **completed an opening assessment** within the CAMHS team?		
Has this child received **only formulation/initial assessment stages of CBT/parenting intervention** (generally this means they may have had two or less sessions but can be more) in last 6 months since their opening assessment?		
Does the child have a **primary caregiver/parent who is willing to consider taking part**?		

If all boxes are ticked yes and participant has been given the invitation to take part letter and is interested in receiving further information please say this: Thank you for agreeing to be contacted with further information about the

study, Rochelle Barden will contact you with further information over the next couple of weeks.

Please note, participating in this study is voluntary and the participant can decline to participate at any point.

Please collect the following additional information (only if the parent and child agree to their details being passed along):

Child's Name:
_____

Child's Age:
_____

Child's primary caregiver's Name:
_____

Primary contact number:
_____

Secondary contact number: _____

Email address (if they wish to be contacted via email)
_____

Clinician name _____

Clinician signature:

Date:

Appendix M: CAMHS Invitation letter

Department of Psychology | UNIVERSITY OF BATH

Bath BA2 7AY United Kingdom

Telephone +44 (0)1225 385506

Child Anxiety and Perfectionism Study

Dear Parent,

We are trying to find out about what makes child anxiety worse so we are doing some research.

This research will help us to develop a better understanding of what makes children feel anxious. Its is helpful because if we can get better at understanding why children feel anxious, we can get even better at helping children to feel better. You have been given this letter because you can take part in this study if you would like to.

A quick summary of what taking part involves can be found on the next page. Your decision to take part in this study is completely up to you. If you choose not to take part it will not affect the treatment your child receives in any way at all.

With your agreement, Rochelle Barden will try to telephone you in the next few weeks to say hello, answer any questions you might have, and discuss whether you and your child would like to take part in this study.

If you change your mind and decide that you do NOT want Rochelle to call you, please let your CAMHS clinician know and they will tell Rochelle not to call you, which is no problem at all.

Yours sincerely,

Rochelle Barden, Trainee Clinical Psychologist

Child Anxiety and Perfectionism Study

Key facts about taking part in the study

1. You and your child would be invited to answer three questionnaires each online. This should only take about 10 minutes (for both yourself and your child). Rochelle would email you a link which you can click on to answer the questionnaire's (you could do this on your phone or a computer)

2. The questionnaires will ask you about things that may make child anxiety worse or better.

3. Any information you provide will be treated confidentially, this means that it will be kept private.

4. You can change your mind about taking part, just let Rochelle or your CAMHS clinician know within 2 weeks of completing the questionnaires.

5. You will be offered a £10 amazon voucher as a thank you for taking part.

Thank you for taking the time to read this information. If you are interested in taking part then please let your CAMHS clinician know so that Rochelle Barden can call you and give you further information to help you decide whether you and your child would like to take part.

Appendix N: Parent and child consent forms (clinical and community sample)

Department of Psychology | UNIVERSITY OF BATH

Bath BA2 7AY United Kingdom

Telephone +44 (0)1225 385506

Parent Consent form for the Child Anxiety and Perfectionism Study

Researchers Names: Rochelle Barden, Dr Rachel Hiller, Dr Claire Lomax

Child's ID number:

I have read the participant information sheet and had a chance to ask questions

☐

I understand that participating in this study is completely voluntary

☐

I understand that I can withdraw at any time for any reason and that if I choose to withdraw it will have no impact on the service my child receives

☐

I understand that data used in this study will be treated anonymously and if published no individual will be identifiable

☐

I give consent for the questionnaires that I and my child complete to be analysed as part of this study

☐

I understand that the questionnaire data that I and my child complete will be kept for 10 years following study completion, after which whether or not it is kept will be reviewed by the University of Bath.

☐

Date:

Department of Psychology | UNIVERSITY OF BATH

Bath BA2 7AY United Kingdom

Telephone +44 (0)1225 385506

Child Assent form for the Child Anxiety and Perfectionism Study

Researchers Names: Rochelle Barden, Dr Rachel Hiller, Dr Claire Lomax

This form is to check that you are happy to take part in this questionnaire study.

It is important that you understand that taking part is totally up to you. You do not have to agree to take part and you can change your mind at any time, even if you have filled in this form.

You should only agree to take part if you know enough about the study to decide if you would like to take part and have asked any questions about the study that you want to ask.

If you are happy to join our study and for your answers to the questionnaire's to be used for this study then please type your ID number (the initials of your first and last name, then the initials of the first and last name of your parent who is completing the questionnaires and the year you were born e.g. if your name is James Brown and your mum is Anne Brown and you were born in 2001 your ID would be JBAB2001) and the date in the box below (Do not write your name):

ID NUMBER:

DATE:

Appendix O: Questionnaires

Child and Adolescent Perfectionism Scale (CAPS) (Child completes)

CAPS

This is a chance to find out about yourself. It is not a test. There are no right answers and everyone will have different answers. Be sure that your answers show how you actually are. Please do not talk about your answers with anyone else. We will keep your answers private and not show them to anyone.

When you are ready to begin, please read each sentence below and pick your answer by circling a number from "1" to "5". The five possible answers for each sentence are listed below:

1 = False—Not at all true of me

2 = Mostly False

3 = Neither True Nor False

4 = Mostly True

5 = Very True of me

For example, if you were given the sentence "I like to read comic books," you would circle a "5" if this is very true of you. If you were given the sentence "I like to keep my room neat and tidy," you would circle a "1" if this was false and not at all true of you. You are now ready to begin.

Please be sure to answer all of the sentences.

	False	**True**

1. I try to be perfect in every thing I do……1 2 3 4 5
2. I want to be the best at everything I do…….....1 2 3 4 5
3. My parents don't always expect me to be perfect in everything I do.……1 2 3 4 5
4. I feel that I have to do my best all the time.……..1 2 3 4 5
5. There are people in my life who expect me to be perfect..1 2 3 4 5
6. I always try for the top score on a test……1 2 3 4 5
7. It really bothers me if I don't do my best all the time.……1 2 3 4 5
8. My family expects me to be perfect…….1 2 3 4 5
9. I don't always try to be the best……....1 2 3 4 5
10. People expect more from me than I am able to give.……1 2 3 4 5
11. I get mad at myself when I make a mistake.……1 2 3 4 5
12. Other people think that I have failed if I do not do my very best all the time……1 2 3 4 5
13. Other people always expect me to be perfect……....1 2 3 4 5
14. I get upset if there is even one mistake in my work……...1 2 3 4 5
15. People around me expect me to be great at everything....1 2 3 4 5
16. When I do something, it has to be perfect.……1 2 3 4 5

17. My teachers expect my work to be perfect…….1 2 3 4 5

18. I do not have to be the best at everything I do……..…..1 2 3 4 5

19. I am always expected to do better than others……..1 2 3 4 5

20. Even when I pass, I feel that I have failed if I didn't get one of the highest marks in the class……...1 2 3 4 5

21. I feel that people ask too much of me……...1 2 3 4 5

22. I can't stand to be less than perfect…….1 2 3 4 5

Parental Authority Questionnaire (adult completes)

***PAQ-R Instructions*: For each statement below circle the number that best describes <u>your beliefs about parenting your child</u>. There are no right or wrong answers. We are looking for your overall impression regarding each statement. In the right column, please CIRCLE your answer for each item: SA = Strongly Agree; A = Agree ; N = Neither Agree nor Disagree; D = Disagree; SD = Strongly Disagree.**

1. In a well-run home children should have their way as often as parents do.	1. SA A N D SD
2. It is for my childrens' own good to require them to do what I think is right, even if they don't agree.	2. SA A N D SD
3. When I ask my children to do something, I expect it to be done immediately without questions.	3. SA A N D SD
4. Once family rules have been made, I discuss the reasons for the rules with my children.	4. SA A N D SD
5. I always encourage discussion when my children feel family rules and restrictions are unfair.	5. SA A N D SD
6. Children need to be free to make their own decisions about activities, even if this disagrees with what a parent might want to do.	6. SA A N D SD
7. I do not allow my children to question the decisions that I make.	7. SA A N D SD
8. I direct the activities and decisions of my children by talking with them and using rewards and punishments.	8. SA A N D SD
9. Other parents should use more force to get their children to behave.	9. SA A N D SD
10. My children do not need to obey rules simply because people in authority have told them to.	10. SA A N D SD
11. My children know what I expect from them, but feel free to talk with me if they feel my expectations are unfair.	11. SA A N D SD
12. Smart parents should teach their children early exactly who is the boss in the family.	12. SA A N D SD
13. I usually don't set firm guidelines for my childrens' behavior.	13. SA A N D SD
14. Most of the time I do what my children want when making family decisions.	14. SA A N D SD
15. I tell my children what they should do, but I explain why I want them to do it.	15. SA A N D SD
16. I get very upset if my children try to disagree with me.	16. SA A N D SD
17. Most problems in society would be solved if parents would let their children choose their activities, make their own decisions, and follow their own desires when growing up.	17. SA A N D SD
18. I let my children know what behavior is expected and if they don't follow the rules they get punished.	18. SA A N D SD
19. I allow my children to decide most things for themselves without a lot of help from me.	19. SA A N D SD
20. I listen to my children when making decisions, but I do not decide something simply because my children want it.	20. SA A N D SD
21. I do not think of myself as responsible for telling my children what to do.	21. SA A N D SD
22. I have clear standards of behavior for my children, but I am willing to change these standards to meet the needs of the child.	22. SA A N D SD
23 I expect my children to follow my directions, but I am always willing to listen to their concerns and discuss the rules with them.	23. SA A N D SD
24. I allow my children to form their own opinions about family matters and let them make their own decisions about those matters.	24. SA A N D SD
25. Most problems in society could be solved if parents were stricter when their children disobey.	25. SA A N D SD
26. I often tell my children exactly what I want them to do and how I expect them to do it.	26. SA A N D SD
27. I set firm guidelines for my children but am understanding when they disagree with me.	27. SA A N D SD
28. I do not direct the behaviors, activities or desires of my children.	28. SA A N D SD
29. My children know what I expect of them and do what is asked simply out of respect for my authority.	29. SA A N D SD
30. If I make a decision that hurts my children, I am willing to admit that I made a mistake.	30. SA A N D SD

Critical Parenting Inventory (child completes)

Think over the types of things that your main caregiver (for example, your mum) would say to you while you were growing up.

Then, for each item below, rate the degree to which your main caregiver said these things (or similar things) to you when things didn't go well for you.

Make your selection from the scale below for each question;

1 - Never said these things (or similar things) to me

2 - Rarely said these things (or similar things) to me

3 - Sometimes said these things (or similar things) to me

4 - Often said these things (or similar things) to me

5 - Very often said these things (or similar things) to me

6 - Always said these things (or similar things) to me

1. "You'll never be good at anything."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

2. "Just try your best and don't worry about how well you do."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

3. "You should have done a lot better."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

4. "Sure, whichever way you do it is fine."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

5. "You just don't have what it takes."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

6. "You're no good at it so don't even try."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

7. "What's important is what you learn, not how well you do."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

8. "Just give it your best shot."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

9. "That was stupid!" 1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

10. "It's okay, you probably didn't know better at the time."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

11. "It's fine to make mistakes." 1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

12. "You'll never amount to anything."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

13. "What 's the matter with you."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

14. "You put a lot of effort into it and that's what counts."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

15. "Can't you do anything right?" 1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

16. "Couldn't you have done any better than that?"

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

17. "If things don't work out this time, there'll be plenty of other opportunities."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

18. "Why can't you be more like your (brother, sister)."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

19. "It wasn't your fault." 1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

20. "You idiot, why did you do that?"

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

21. "You're going to mess it up; let me do it."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

22. "All you need to do is work on it and I know it will go fine next time."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

23. "What's important is the fact that you tried."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

24. "You screwed it up." **1 2 3 4 5 6**

Never Rarely Sometimes Often Very often Always

25. "No matter how you do, I'll still be proud of you."

1 2 3 4 5 6

Never Rarely Sometimes Often Very often Always

(Randolph & Dykman, 1996)

Revised Children's Anxiety and Depression Scale (RCADS) (child completes)

RCADS

e are

1. I worry about things	Never	Sometimes	Often	Always
2. I feel sad or empty	Never	Sometimes	Often	Always
3. When I have a problem, I get a funny feeling in my stomach	Never	Sometimes	Often	Always
4. I worry when I think I have done poorly at something	Never	Sometimes	Often	Always
5. I would feel afraid of being on my own at home	Never	Sometimes	Often	Always
6. Nothing is much fun anymore	Never	Sometimes	Often	Always
7. I feel scared when I have to take a test	Never	Sometimes	Often	Always
8. I feel worried when I think someone is angry with me	Never	Sometimes	Often	Always
9. I worry about being away from my parents	Never	Sometimes	Often	Always
10. I get bothered by bad or silly thoughts or pictures in my mind	Never	Sometimes	Often	Always
11. I have trouble sleeping	Never	Sometimes	Often	Always
12. I worry that I will do badly at my school work . .	Never	Sometimes	Often	Always
13. I worry that something awful will happen to someone in my family	Never	Sometimes	Often	Always
14. I suddenly feel as if I can't breathe when there is no reason for this	Never	Sometimes	Often	Always
15. I have problems with my appetite	Never	Sometimes	Often	Always
16. I have to keep checking that I have done things right (like the switch is off, or the door is locked)	Never	Sometimes	Often	Always
17. I feel scared if I have to sleep on my own.	Never	Sometimes	Often	Always
18. I have trouble going to school in the mornings because I feel nervous or afraid	Never	Sometimes	Often	Always
19. I have no energy for things	Never	Sometimes	Often	Always
20. I worry I might look foolish	Never	Sometimes	Often	Always
21. I am tired a lot	Never	Sometimes	Often	Always
22. I worry that bad things will happen to me	Never	Sometimes	Often	Always

23. I can't seem to get bad or silly thoughts out of my head.	Never	Sometimes	Often	Always
24. When I have a problem, my heart beats really fast	Never	Sometimes	Often	Always
25. I cannot think clearly	Never	Sometimes	Often	Always
26. I suddenly start to tremble or shake when there is no reason for this	Never	Sometimes	Often	Always
27. I worry that something bad will happen to me . .	Never	Sometimes	Often	Always
28. When I have a problem, I feel shaky	Never	Sometimes	Often	Always
29. I feel worthless	Never	Sometimes	Often	Always
30. I worry about making mistakes	Never	Sometimes	Often	Always
31. I have to think of special thoughts (like numbers or words) to stop bad things from happening. . .	Never	Sometimes	Often	Always
32. I worry what other people think of me	Never	Sometimes	Often	Always
33. I am afraid of being in crowded places (like shopping centers, the movies, buses, busy playgrounds)	Never	Sometimes	Often	Always
34. All of a sudden I feel really scared for no reason at all	Never	Sometimes	Often	Always
35. I worry about what is going to happen	Never	Sometimes	Often	Always
36. I suddenly become dizzy or faint when there is no reason for this	Never	Sometimes	Often	Always
37. I think about death	Never	Sometimes	Often	Always
38. I feel afraid if I have to talk in front of my class	Never	Sometimes	Often	Always
39. My heart suddenly starts to beat too quickly for no reason	Never	Sometimes	Often	Always
40. I feel like I don't want to move	Never	Sometimes	Often	Always
41. I worry that I will suddenly get a scared feeling when there is nothing to be afraid of	Never	Sometimes	Often	Always
42. I have to do some things over and over again (like washing my hands, cleaning or putting things in a certain order)	Never	Sometimes	Often	Always
43. I feel afraid that I will make a fool of myself in front of people	Never	Sometimes	Often	Always
44. I have to do some things in just the right way to stop bad things from happening	Never	Sometimes	Often	Always
45. I worry when I go to bed at night	Never	Sometimes	Often	Always
46. I would feel scared if I had to stay away from home overnight	Never	Sometimes	Often	Always
47. I feel restless	Never	Sometimes	Often	Always

Adult Multidimensional Perfectionism Scale (constructs related to parental expectations of child highlighted in yellow)

Multidimensional Perfectionism Scale (Hewitt, P.L., & Flett, G.L. (1990). Perfectionism and depression: A multidimensional analysis. *Journal of Social Behavior and Personality, 5,* 423-438.
INSTRUCTIONS: Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree & to what extent. **To score your responses, put the number of your response in the column that is highlighted next to this question.**

		Disagree						Agree	Self Oriented	Other Oriented	Socially Prescribed
1.	When I am working on something, I cannot relax until it is perfect	1	2	3	4	5	6	7			
2.	I am not likely to criticize someone for giving up too easily	7	6	5	4	3	2	1			
3.	It is not important that people I am close to are successful	7	6	5	4	3	2	1			
4.	I seldom criticize my friends for accepting second best	7	6	5	4	3	2	1			
5.	I find it difficult to meet others' expectations of me	1	2	3	4	5	6	7			
6.	One of my goals is to be perfect in everything I do	1	2	3	4	5	6	7			
7.	Everything that others do must be of top-notch quality	1	2	3	4	5	6	7			
8.	I never aim for perfection on my work	7	6	5	4	3	2	1			
9.	Those around me readily accept that I can make mistakes too	7	6	5	4	3	2	1			
10.	It doesn't matter when someone close to me does not do their absolute best	7	6	5	4	3	2	1			
11.	The better I do, the better I am expected to do	1	2	3	4	5	6	7			
12.	I seldom feel the need to be perfect	7	6	5	4	3	2	1			
13.	Anything that I do that is less than excellent will be seen as poor work by those around me	1	2	3	4	5	6	7			
14.	I strive to be as perfect as I can be	1	2	3	4	5	6	7			
15.	It is very important that I am perfect in everything I attempt	1	2	3	4	5	6	7			
16.	I have high expectations for the people who are important to me	1	2	3	4	5	6	7			
17.	I strive to be the best at everything I do	1	2	3	4	5	6	7			
18.	The people around me expect me to succeed at everything I do	1	2	3	4	5	6	7			
19.	I do not have very high standards for those around me	7	6	5	4	3	2	1			
20.	I demand nothing less than perfection of myself	1	2	3	4	5	6	7			
21.	Others will like me even if I don't excel at everything	7	6	5	4	3	2	1			
22.	I can't be bothered with people who won't strive to better themselves	1	2	3	4	5	6	7			
23.	It makes me uneasy to see an error in my work	1	2	3	4	5	6	7			
24.	I do not expect a lot from my friends	7	6	5	4	3	2	1			
								SUBTOTALS Page 1	SO =	OO=	SP=

	Add up in each column the colored areas to create summary score for each dimension									
		Disagree						Agree	Self Oriented	Other Oriented	Socially Prescribed
25.	Success means that I must work even harder to please others	1	2	3	4	5	6	7			
26.	If I ask someone to do something, I expect it to be done flawlessly	1	2	3	4	5	6	7			
27.	I cannot stand to see people close to me make mistakes	1	2	3	4	5	6	7			
28.	I am perfectionistic in setting my goals	1	2	3	4	5	6	7			
29.	The people who matter to me should never let me down	1	2	3	4	5	6	7			
30.	Others think I am okay, even when I do not succeed	7	6	5	4	3	2	1			
31.	I feel that people are too demanding of me	1	2	3	4	5	6	7			
32.	I must work to my full potential at all times	1	2	3	4	5	6	7			
33.	Although they may not say it, other people get very upset with me when I slip up	1	2	3	4	5	6	7			
34.	I do not have to be the best at whatever I am doing	7	6	5	4	3	2	1			
35.	My family expects me to be perfect	1	2	3	4	5	6	7			
36.	I do not have very high goals for myself	7	6	5	4	3	2	1			
37.	My parent rarely expected me to excel in all aspects of my life	7	6	5	4	3	2	1			
38.	I respect people who are average	7	6	5	4	3	2	1			
39.	People expect nothing less than perfection from me	1	2	3	4	5	6	7			
40.	I set very high standards for myself	1	2	3	4	5	6	7			
41.	People expect more from me than I am capable of giving	1	2	3	4	5	6	7			
42.	I must always be successful at school or work	1	2	3	4	5	6	7			
43.	It does not matter to me when a close friend does not try their hardest	7	6	5	4	3	2	1			
44.	People around me think I am still competent even if I make a mistake	7	6	5	4	3	2	1			
45.	I seldom expect others to excel at whatever they do.	7	6	5	4	3	2	1			
	SUBTOTALS Page 2										
	Add up in each column the colored squares for each dimension										
	SUBTOTALS from Page 1										
	SUBSCALE TOTALS								SO =	OO=	SP=

Adult Depression Anxiety Stress Scales (DASS 42)

Serenity Programme™ - www.serene.me.uk - Depression, Anxiety and Stress Scales (DASS-42)

Depression, Anxiety and Stress Scales (DASS-42)

Identifier _____ Date _____

Please read each statement and select a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any one statement. This assessment is not intended to be a diagnosis. If you are concerned about your results in any way, please speak with a qualified health professional.

0 = Did not apply to me at all
1 = Applied to me to some degree or for some of the time
2 = Applied to me to a considerable degree or for a good part of time
3 = Applied to me very much or most of the time

1	I found myself getting upset by quite trivial things	0
2	I was aware of dryness of my mouth	0
3	I couldn't seem to experience any positive feelings at all	0
4	I experienced breathing difficulty (e.g. breathlessness or excessively rapid breathing in the absence of physical exertion)	0
5	I just couldn't seem to get going	0
6	I tended to over-react to situations	0
7	I had a feeling of shakiness (e.g. legs going to give way)	0
8	I found it difficult to relax	0
9	I found myself in situations that made me so anxious I was most relieved when they ended	0
10	I felt that I had nothing to look forward to	0
11	I found myself getting upset rather easily	0

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12	I felt that I was using a lot of nervous energy	0
13	I felt sad and depressed	0
14	I found myself getting impatient when I was delayed in any way (e.g. lifts, traffic lights, being kept waiting)	0
15	I had a feeling of faintness	0
16	I felt that I had lost interest in just about everything	0
17	I felt I wasn't worth much as a person	0
18	I felt that I was rather touchy	0
19	I perspired noticeably (e.g. hands sweaty) in the absence of high temperatures or physical exertion	0
20	I felt scared without any good reason	0
21	I felt that life wasn't worthwhile	0
22	I found it hard to wind down	0
23	I had difficulty in swallowing	0
24	I couldn't seem to get any enjoyment out of the things I did	0
25	I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	0
26	I felt down-hearted and blue	0
27	I found that I was very irritable	0
28	I felt I was close to panic	0

Serenity Programme™ - www.serene.me.uk - Depression, Anxiety and Stress Scales (DASS-42)

29	I found it hard to calm down after something upset me	0
30	I feared that I would be 'thrown' by some trivial but unfamiliar task	0
31	I was unable to become enthusiastic about anything	0
32	I found it difficult to tolerate interruptions to what I was doing	0
33	I was in a state of nervous tension	0
34	I felt I was pretty worthless	0
35	I was intolerant of anything that kept me from getting on with what I was doing	0
36	I felt terrified	0
37	I could see nothing in the future to be hopeful about	0
38	I felt that life was meaningless	0
39	I found myself getting agitated	0
40	I was worried about situations in which I might panic and make a fool of myself	0
41	I experienced trembling (e.g. in the hands)	0
42	I found it difficult to work up the initiative to do things	0

Depression	0
Anxiety	0
Stress	0

Print Form Clear Form

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Appendix P: SPSS descriptive statistics (T-tests) output

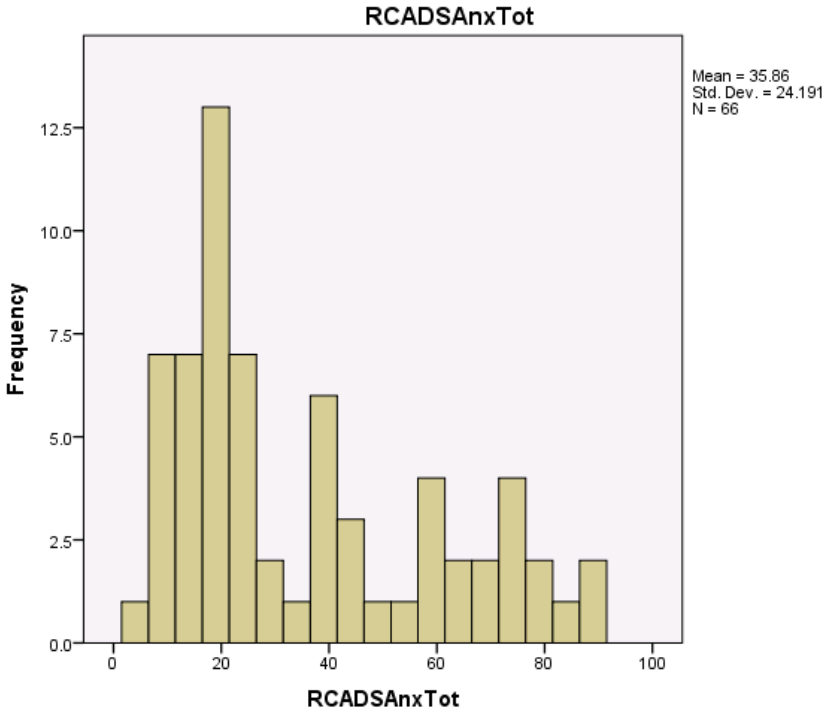
One-Sample Test

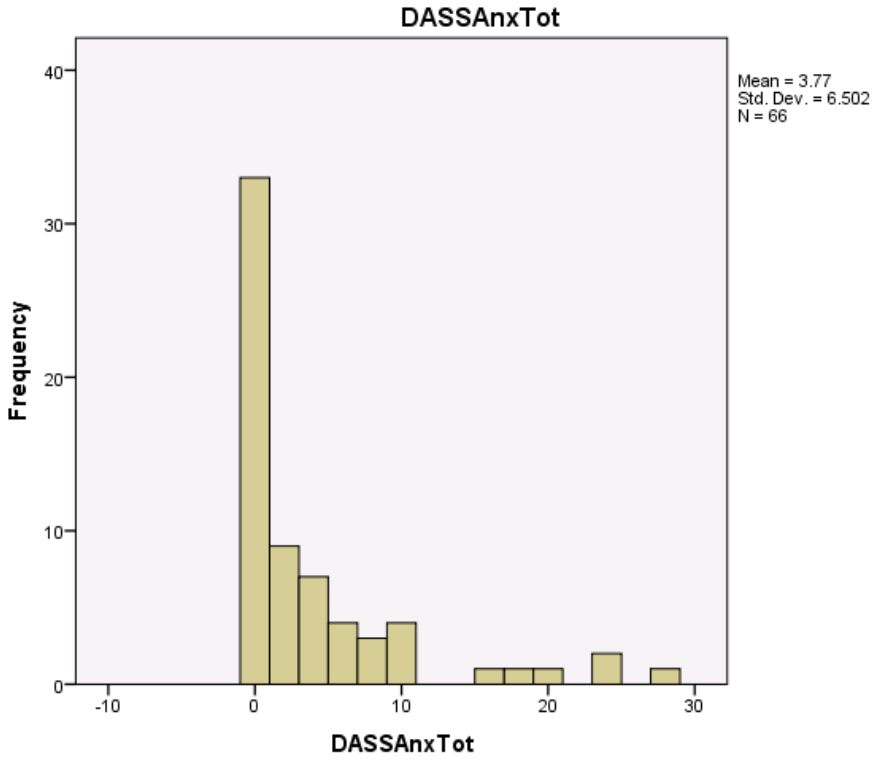
	Test Value = 0				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference
					Lower
DASSAnxTot	4.714	65	.000	3.773	2.17
MDPSOOPMaladaptSOPCSPPOOPTot	30.040	65	.000	117.697	109.87
PAQRAuthoritarianTot	32.506	65	.000	25.939	24.35
CPITot	28.357	65	.000	61.712	57.37
RCADSAnxTot	12.044	65	.000	35.864	29.92
CAPSMaladaptSOPCSPPTot	29.395	65	.000	39.515	36.83

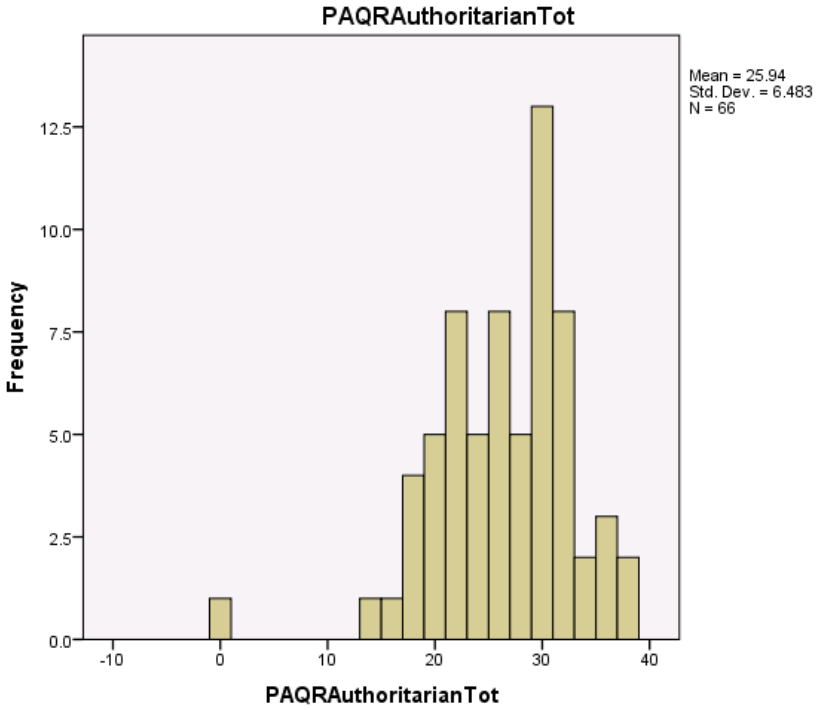
One-Sample Test

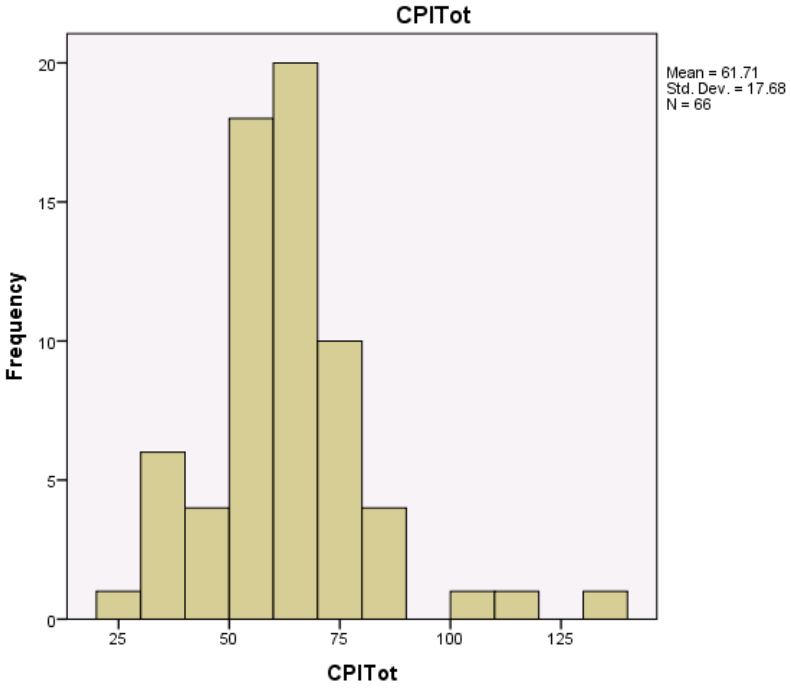
	Test Value = 0
	95% Confidence Interval of the Difference
	Upper
DASSAnxTot	5.37
MDPSOOPMaladaptSOPCSPPOOPTot	125.52
PAQRAuthoritarianTot	27.53
CPITot	66.06
RCADSAnxTot	41.81
CAPSMaladaptSOPCSPPTot	42.20

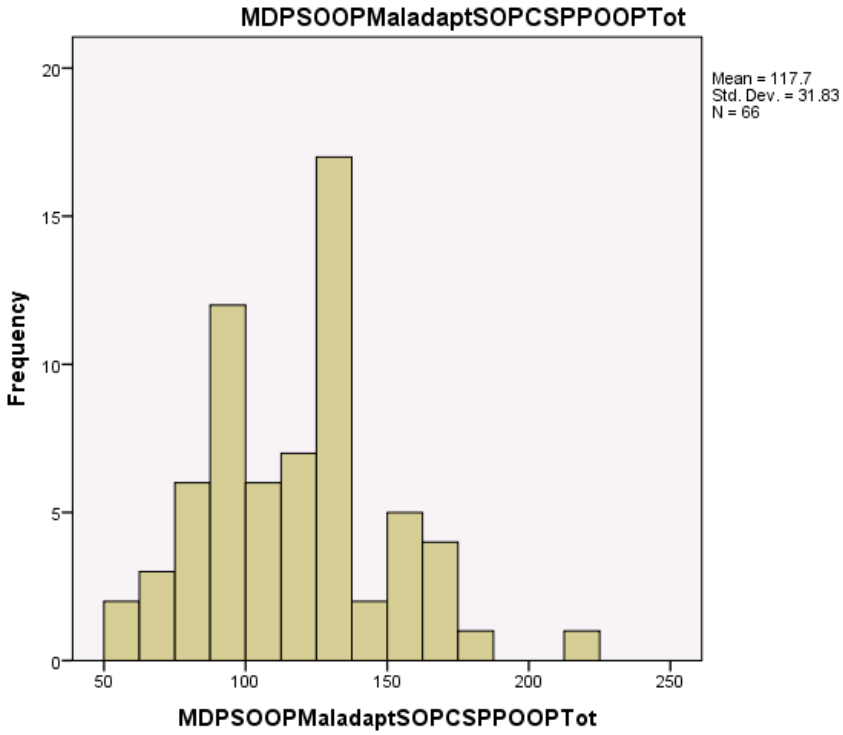
Appendix Q: SPSS Histograms outputs

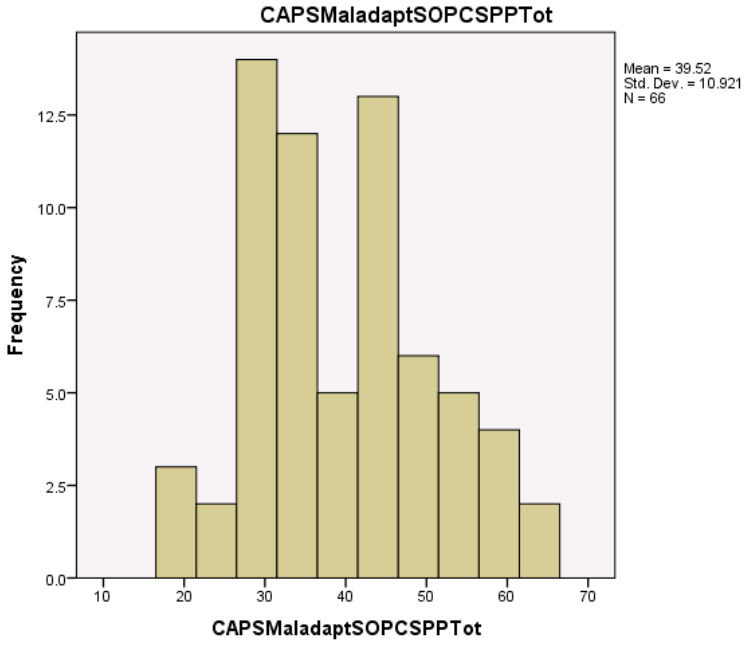





PAQRAuthoritarianTot
Mean = 25.94
Std. Dev. = 6.483
N = 66
Frequency
12.5
10.0
7.5
5.0
2.5
0.0
-10
0
10
20
30
40
PAQRAuthoritarianTot


CPITot
Mean = 61.71
Std. Dev. = 17.68
N = 66
Frequency
20
15
10
5
0
25
50
75
100
125
CPITot





Appendix R: SPSS correlation analysis outputs

Correlations

		DASSAnxTot	MDPSOOPMaladaptSOPCSPPOOPTot
DASSAnxTot	Pearson Correlation	1	.302*
	Sig. (2-tailed)		.014
	N	66	66
MDPSOOPMaladaptSOPCSPPOOPTot	Pearson Correlation	.302*	1
	Sig. (2-tailed)	.014	
	N	66	66

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

		DASSAnxTot	PAQRAuthoritarianTot
DASSAnxTot	Pearson Correlation	1	.164
	Sig. (2-tailed)		.188
	N	66	66
PAQRAuthoritarianTot	Pearson Correlation	.164	1
	Sig. (2-tailed)	.188	
	N	66	66

Correlations

		PAQRAuthoritarianTot	MDPSOOPMaladaptSOPCSPPOOPTot
PAQRAuthoritarianTot	Pearson Correlation	1	.215
	Sig. (2-tailed)		.084
	N	66	66
MDPSOOPMaladaptSOPCS	Pearson Correlation	.215	1

PPOOPTot	Sig. (2-tailed)	.084	
	N	66	66

Correlations

		CPITot	DASSAnxTot
CPITot	Pearson Correlation	1	.023
	Sig. (2-tailed)		.854
	N	66	66
DASSAnxTot	Pearson Correlation	.023	1
	Sig. (2-tailed)	.854	
	N	66	66

Correlations

		CPITot	MDPSOOPMaladaptSOPCSPPOOPTot
CPITot	Pearson Correlation	1	.220
	Sig. (2-tailed)		.076
	N	66	66
MDPSOOPMaladaptSOPCSPPOOPTot	Pearson Correlation	.220	1
	Sig. (2-tailed)	.076	
	N	66	66

Correlations

		CPITot	PAQRAuthoritarianTot
CPITot	Pearson Correlation	1	-.017
	Sig. (2-tailed)		.893
	N	66	66

PAQRAuthoritarianTot	Pearson Correlation	-.017	1
	Sig. (2-tailed)	.893	
	N	66	66

Correlations

		RCADSAnxTot	DASSAnxTot
RCADSAnxTot	Pearson Correlation	1	.066
	Sig. (2-tailed)		.598
	N	66	66
DASSAnxTot	Pearson Correlation	.066	1
	Sig. (2-tailed)	.598	
	N	66	66

Correlations

		RCADSAnxTot	MDPSOOPMaladaptSOPCSPPOOPTot
RCADSAnxTot	Pearson Correlation	1	-.205
	Sig. (2-tailed)		.099
	N	66	66
MDPSOOPMaladaptSOPCSPPOOPTot	Pearson Correlation	-.205	1
	Sig. (2-tailed)	.099	
	N	66	66

Correlations

	RCADSAnxTot	PAQRAuthoritarianTot

RCADSAnxTot	Pearson Correlation	1	.079
	Sig. (2-tailed)		.531
	N	66	66
PAQRAuthoritarianTot	Pearson Correlation	.079	1
	Sig. (2-tailed)	.531	
	N	66	66

Correlations

		RCADSAnxTot	CPITot
RCADSAnxTot	Pearson Correlation	1	.174
	Sig. (2-tailed)		.162
	N	66	66
CPITot	Pearson Correlation	.174	1
	Sig. (2-tailed)	.162	
	N	66	66

Correlations

		RCADSAnxTot	CAPSMaladaptSOPCSPPTot
RCADSAnxTot	Pearson Correlation	1	.495**
	Sig. (2-tailed)		.000
	N	66	66
CAPSMaladaptSOPCSPPTot	Pearson Correlation	.495**	1
	Sig. (2-tailed)	.000	
	N	66	66

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

		CAPSMaladaptSOPCSPPTot	DASSAnxTot
CAPSMaladaptSOPCSPPTot	Pearson Correlation	1	.050
	Sig. (2-tailed)		.689
	N	66	66
DASSAnxTot	Pearson Correlation	.050	1
	Sig. (2-tailed)	.689	
	N	66	66

Correlations

		CAPSMaladaptSOPCSPPTot	MDPSOOPMaladaptSOPCSPPOOPTot
CAPSMaladaptSOPCSPPTot	Pearson Correlation	1	-.052
	Sig. (2-tailed)		.678
	N	66	66
MDPSOOPMaladaptSOPCSPPOOPTot	Pearson Correlation	-.052	1
	Sig. (2-tailed)	.678	
	N	66	66

Correlations

		CAPSMaladaptSOPCSPPTot	PAQRAuthoritarianTot
CAPSMaladaptSOPCSPPTot	Pearson Correlation	1	-.214
	Sig. (2-tailed)		.084
	N	66	66
PAQRAuthoritarianTot	Pearson Correlation	-.214	1
	Sig. (2-tailed)	.084	

N	66	66

Correlations

		CAPSMaladaptSOPCSPPTot	CPITot
CAPSMaladaptSOPCSPPTot	Pearson Correlation	1	.210
	Sig. (2-tailed)		.091
	N	66	66
CPITot	Pearson Correlation	.210	1
	Sig. (2-tailed)	.091	
	N	66	66

Appendix S: SPSS mediator analysis outputs

Run MATRIX procedure:

```
*************************************************************************
Preacher and Hayes (2008) SPSS Macro for Multiple Mediation
Written by Andrew F. Hayes, The Ohio State University
http://www.afhayes.com
For details, see Preacher, K. J., & Hayes, A. F. (2008). Asymptotic
and resampling strategies for assessing and comparing indirect effects
in multiple mediator models. Behavior Research Methods, 40, 879-891.
Also see Chapter 5 of Introduction to Mediation, Moderation, and
Conditional Process Analysis. New York: The Guilford Press
http://www.guilford.com/p/hayes3
*************************************************************************
```

Dependent, Independent, and Proposed Mediator Variables:

DV = RCADSAnx

IV = DASSAnxT

MEDS = CAPSMala

Sample size

66

IV to Mediators (a paths)

	Coeff	se	t	p
CAPSMala	.0843	.2097	.4022	.6889

Direct Effects of Mediators on DV (b paths)

	Coeff	se	t	p
CAPSMala	1.0924	.2425	4.5053	.0000

Total Effect of IV on DV (c path)

	Coeff	se	t	p
DASSAnxT	.2460	.4641	.5301	.5979

Direct Effect of IV on DV (c' path)

	Coeff	se	t	p
DASSAnxT	.1539	.4073	.3778	.7068

Model Summary for DV Model

R-sq	Adj R-sq	F	df1	df2	p
.2470	.2231	10.3317	2.0000	63.0000	.0001

****

NORMAL THEORY TESTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Effect	se	Z	p
TOTAL	.0921	.2282	.4037	.6864
CAPSMala	.0921	.2282	.4037	.6864

****

BOOTSTRAP RESULTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Data	Boot	Bias	SE
TOTAL	.0921	.1053	.0131	.2349
CAPSMala	.0921	.1053	.0131	.2349

Bias Corrected Confidence Intervals

	Lower	Upper
TOTAL	-.3011	.6598
CAPSMala	-.3011	.6598

****

Level of Confidence for Confidence Intervals:

95

Number of Bootstrap Resamples:

5000

********** NOTES **********

Bootstrap confidence intervals are preferred to normal theory tests for inference about indirect effects. See Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. Communication Monographs, 76, 408-420, or Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York: The Guilford Press

------ END MATRIX -----

Run MATRIX procedure:

****

Preacher and Hayes (2008) SPSS Macro for Multiple Mediation

Written by Andrew F. Hayes, The Ohio State University

http://www.afhayes.com

For details, see Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behavior Research Methods, 40, 879-891.

Also see Chapter 5 of Introduction to Mediation, Moderation, and Conditional Process Analysis. New York: The Guilford Press

http://www.guilford.com/p/hayes3

****

Dependent, Independent, and Proposed Mediator Variables:

DV = RCADSAnx

IV = MDPSMala

MEDS = CAPSMala

Sample size

66

IV to Mediators (a paths)

	Coeff	se	t	p
CAPSMala	-.0179	.0428	-.4168	.6782

Direct Effects of Mediators on DV (b paths)

	Coeff	se	t	p
CAPSMala	1.0764	.2376	4.5309	.0000

Total Effect of IV on DV (c path)

	Coeff	se	t	p
MDPSMala	-.1555	.0930	-1.6723	.0994

Direct Effect of IV on DV (c' path)

	Coeff	se	t	p
MDPSMala	-.1363	.0815	-1.6721	.0995

Model Summary for DV Model

R-sq	Adj R-sq	F	df1	df2	p
.2773	.2544	12.0894	2.0000	63.0000	.0000

****

NORMAL THEORY TESTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Effect	se	Z	p
TOTAL	-.0192	.0459	-.4183	.6757
CAPSMala	-.0192	.0459	-.4183	.6757

****

BOOTSTRAP RESULTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Data	Boot	Bias	SE
TOTAL	-.0192	-.0154	.0038	.0414
CAPSMala	-.0192	-.0154	.0038	.0414

Bias Corrected Confidence Intervals

	Lower	Upper
TOTAL	-.0966	.0713
CAPSMala	-.0966	.0713

****

Level of Confidence for Confidence Intervals:

95

Number of Bootstrap Resamples:

5000

********** NOTES **********

Bootstrap confidence intervals are preferred to normal theory tests for inference about indirect effects. See Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. Communication Monographs, 76, 408-420, or Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York: The Guilford Press

------ END MATRIX -----

Run MATRIX procedure:

****

Preacher and Hayes (2008) SPSS Macro for Multiple Mediation

Written by Andrew F. Hayes, The Ohio State University

http://www.afhayes.com

For details, see Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behavior Research Methods, 40, 879-891.

Also see Chapter 5 of Introduction to Mediation, Moderation, and Conditional Process Analysis. New York: The Guilford Press http://www.guilford.com/p/hayes3

****

Dependent, Independent, and Proposed Mediator Variables:

DV = RCADSAnx

IV = PAQRAuth

MEDS = CAPSMala

Sample size

66

IV to Mediators (a paths)

	Coeff	se	t	p
CAPSMala	-.3609	.2057	-1.7547	.0841

Direct Effects of Mediators on DV (b paths)

	Coeff	se	t	p
CAPSMala	1.1889	.2423	4.9073	.0000

Total Effect of IV on DV (c path)

	Coeff	se	t	p
PAQRAuth	.2930	.4650	.6301	.5308

Direct Effect of IV on DV (c' path)

	Coeff	se	t	p

PAQRAuth .7221 .4081 1.7693 .0817

Model Summary for DV Model

R-sq	Adj R-sq	F	df1	df2	p
.2810	.2582	12.3111	2.0000	63.0000	.0000

****

NORMAL THEORY TESTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Effect	se	Z	p
TOTAL	-.4291	.2575	-1.6666	.0956
CAPSMala	-.4291	.2575	-1.6666	.0956

****

BOOTSTRAP RESULTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Data	Boot	Bias	SE
TOTAL	-.4291	-.4433	-.0143	.2570
CAPSMala	-.4291	-.4433	-.0143	.2570

Bias Corrected Confidence Intervals

	Lower	Upper
TOTAL	-1.0692	-.0346

CAPSMala -1.0692 -.0346

****

Level of Confidence for Confidence Intervals:

95

Number of Bootstrap Resamples:

5000

********** NOTES **********

Bootstrap confidence intervals are preferred to normal theory tests for inference about indirect effects. See Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. Communication Monographs, 76, 408-420, or Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York: The Guilford Press

------ END MATRIX -----

Run MATRIX procedure:

****

Preacher and Hayes (2008) SPSS Macro for Multiple Mediation

Written by Andrew F. Hayes, The Ohio State University

http://www.afhayes.com

For details, see Preacher, K. J., & Hayes, A. F. (2008). Asymptotic

and resampling strategies for assessing and comparing indirect effects
in multiple mediator models. Behavior Research Methods, 40, 879-891.
Also see Chapter 5 of Introduction to Mediation, Moderation, and
Conditional Process Analysis. New York: The Guilford Press
http://www.guilford.com/p/hayes3
****

Dependent, Independent, and Proposed Mediator Variables:

DV = RCADSAnx

IV = CPITot

MEDS = CAPSMala

Sample size

66

IV to Mediators (a paths)

	Coeff	se	t	p
CAPSMala	.1296	.0755	1.7164	.0909

Direct Effects of Mediators on DV (b paths)

	Coeff	se	t	p
CAPSMala	1.0629	.2471	4.3011	.0001

Total Effect of IV on DV (c path)

	Coeff	se	t	p
CPITot	.2383	.1684	1.4151	.1619

Direct Effect of IV on DV (c' path)

	Coeff	se	t	p
CPITot	.1006	.1526	.6591	.5122

Model Summary for DV Model

R-sq	Adj R-sq	F	df1	df2	p
.2504	.2266	10.5249	2.0000	63.0000	.0001

****

NORMAL THEORY TESTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Effect	se	Z	p
TOTAL	.1377	.0856	1.6083	.1078
CAPSMala	.1377	.0856	1.6083	.1078

****

BOOTSTRAP RESULTS FOR INDIRECT EFFECTS

Indirect Effects of IV on DV through Proposed Mediators (ab paths)

	Data	Boot	Bias	SE
TOTAL	.1377	.1402	.0025	.1018
CAPSMala	.1377	.1402	.0025	.1018

Bias Corrected Confidence Intervals

	Lower	Upper
TOTAL	-.0274	.3816
CAPSMala	-.0274	.3816

****

Level of Confidence for Confidence Intervals:

95

Number of Bootstrap Resamples:

5000

********** NOTES
****

Bootstrap confidence intervals are preferred to normal theory tests for inference about indirect effects. See Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. Communication Monographs, 76, 408-420, or Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York: The Guilford Press

------ END MATRIX -----

Appendix T: Guidelines for Family Process Journal

Manuscripts—Family Process follows the Publication Manual of the American Psychological Association (6th ed.).
Additional information is available at www.apastyle.org. Specifically:

• Electronic manuscripts must be double spaced in 12 point font throughout, including the abstract and references. Pages should be numbered consecutively with the title page as page one and include abstract, text, references, and visuals.
• Manuscripts should not exceed 30 pages or 6,000 words, including title page, abstract, text, references, tables, and figures.
• Do not underline; use the italic font.
• A separate title/cover page must include full names of authors in order of their contribution, author affiliation and location, title, author note, byline, and grant support. Because Family Process uses a masked review system, the cover page should be used to provide identifying information about the authors. The authors' names should not appear on subsequent pages and every effort should be made in the text for the authors' identity to remain anonymous.
• Abstracts should be approximately 200-250 words in length.
• Headings must be short. Three levels of headings are used within the text, as follows:
• Main heading: Centered, Boldface, Uppercase and Lowercase Heading
• Main subhead: Flush Left, Boldface, Uppercase and Lowercase Side Heading
• Minor subhead: Indented, Boldface, lowercase paragraph heading ending with a period.
• Tables and Figures—Limit the use of tables to data that correlate specifically to article content or communicate large amounts of data efficiently. All tables and figures should be submitted on a separate page, have a separate title, and be cited within the text with placement indicated. For figures, EPS, TIFF or PDF formatting must be used. Type title, legend, and notes for figures double-spaced on a separate page. Please note that it is the policy of *Family Process* for authors to pay the full cost for the reproduction of their color artwork in print. Color figures will be reproduced at no cost to the author in the online version of the author.

Appendix U: Guidelines for Psychology and Psychotherapy: Theory, research and practice

Author Guidelines

Psychology and Psychotherapy: Theory Research and Practice (formerly The British Journal of Medical Psychology) is an international scientific journal with a focus on the psychological aspects of mental health difficulties and well-being; and psychological problems and their psychological treatments. We welcome submissions from mental health professionals and researchers from all relevant professional backgrounds. The Journal welcomes submissions of original high quality empirical research and rigorous theoretical papers of any theoretical provenance provided they have a bearing upon vulnerability to, adjustment to, assessment of, and recovery (assisted or otherwise) from psychological disorders. Submission of systematic reviews and other research reports which support evidence-based practice are also welcomed, as are relevant high quality analogue studies. The Journal thus aims to promote theoretical and research developments in the understanding of cognitive and emotional factors in psychological disorders, interpersonal attitudes, behaviour and relationships, and psychological therapies (including both process and outcome research) where mental health is concerned.

Length

All articles submitted to PAPT must adhere to the stated word limit for the particular article type. The journal operates a policy of returning any papers that are over this word limit to the authors. The word limit does not include the abstract, reference list, figures and tables. Appendices however are included in the word limit. The Editors retain discretion to publish papers beyond this length in cases where the clear and concise expression of the scientific content requires greater length (e.g., a new theory or a new method). The authors should contact the Editors first in such a case.

Word limits for specific article types are as follows:

• Research articles: 5000 words

• Qualitative papers: 6000 words

• Review papers: 6000 words

• Special Issue papers: 5000 words

Manuscript requirements

• Contributions must be typed in double spacing with wide margins. All sheets must be numbered.

• Manuscripts should be preceded by a title page which includes a full list of authors and their affiliations, as well as the corresponding author's contact details.
• The main document must be anonymous. Please do not mention the authors' names or affiliations (including in the Method section) and refer to any previous work in the third person.
• For articles containing original scientific research, a structured abstract of up to 250 words should be included with the headings: Objectives, Design, Methods, Results, Conclusions. Review articles should use these headings: Purpose, Methods, Results, Conclusions.
• For reference citations, please use APA style. Particular care should be taken to ensure that references are accurate and complete. Give all journal titles in full and provide DOI numbers where possible for journal articles.
• SI units must be used for all measurements, rounded off to practical values if appropriate, with the imperial equivalent in parentheses.
• In normal circumstances, effect size should be incorporated.
For guidelines on editorial style, please consult the APA Publication Manual published by the American Psychological Association.